

DISTRIBUTION AGE

DECEMBER, 1948



Is Handling Cutting Down Your Profits?

**REDUCE
HANDLING
COSTS
with TOWMOTOR
MH***

* M H is Mass Handling—the systematic movement of the most units, in the shortest time, at the lowest cost.



**PICTURE
YOUR
PRODUCT
HERE**

When excessive production costs and restricted productive output combine to cut down profits, better check your handling methods—and replace with Towmotor Mass Handling. Towmotor Fork Lift Trucks and Tractors, gasoline-powered for full-time, full-power service, provide maximum handling efficiency in any plant, large or small. You'll invest less and get more from Towmotor—always ready to lift, transport and stack materials and products of any kind . . . anywhere, any time. Operating costs? Let the men who have to make handling pay a profit show you: More professional handlers use Towmotor than any other fork lift truck.

You can double and triple savings on your handling operations with Towmotor Accessories, such as the Unloader illustrated. If you cannot solve your handling problem with standard Towmotor Accessories, Towmotor engineers will help you work out special equipment to meet your specific needs. Write for details.

TOWMOTOR CORPORATION

Division 19, 1226 E. 152nd Street, Cleveland 10, Ohio
Representatives in All Principal Cities in U. S. and Canada



SEND FOR FREE BOOK!

You'll learn how to recognize and analyze your handling problems with the Towmotor Materials Handling Analysis Guide. Send for a free copy.



TOWMOTOR

**FORK LIFT TRUCKS
and TRACTORS**

RECEIVING • PROCESSING • STORAGE • DISTRIBUTION

The BAKER Line of Electric Fork Trucks

LIGHTWEIGHT

FQH

FRH



1000 to
1500 lbs.
30" long

FAH



2000 to
3000 lbs.
48" long

FBH



4000 lbs.
48" long

AIMH
(Articulated)



4000 lbs.
54" long

JOMH



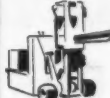
4000 to
12,000 lbs.
48" to 60"
long

JOM



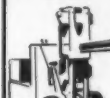
14,000 to
15,000 lbs.
48" to 72"
long

JOM



16,000 to
18,000 lbs.
48" to 78"
long

JOM



20,000 lbs.
84" long

*Now... BAKER fills the gap
with a NEW LIGHTWEIGHT
LOW-COST ELECTRIC FORK TRUCK
in the 2000 lb. class!*

Specifications

Capacity—2000 lbs., 36 inches long
Width—30 inches
Length—63 inches (exclusive of forks)—
Requires only 76½ inches plus length
of load for right angle turn
Weight—3850 lbs. including battery
Lift—Tilting, telescoping to 119 inches
Battery—36V, 250 ampere hours—Will run
10 to 11 hours in average service.
Travel Speed—400-440 FPM
Lifting Speed—18-26 FPM

DESIGNED TO MEET A SPECIFIC DEMAND IN MATERIAL HANDLING

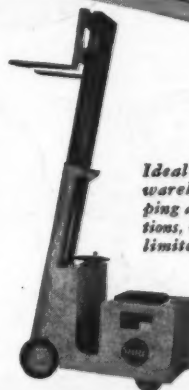
The Baker FQH 1000 lb. Fork Truck introduced a year ago received enthusiastic acceptance. It also disclosed the urgent need for a similar truck with greater capacity, and a 1500 lb. model was made available. Now Baker completes its line with the FRH-20, a light weight, low cost, highly maneuverable electric fork truck in the 2000 lb. field . . . This truck is ideal for plants where narrow aisles, limited floor capacity and low capacity elevators are factors and where loads can be limited to 2000 lbs., 36 inches long.

*See this new truck in action at the Materials Handling
Exposition, Philadelphia, January 10-14, 1949.*

BAKER INDUSTRIAL TRUCK DIVISION of The Baker-Raulang Company

2176 West 25th Street • Cleveland 13, Ohio

In Canada: Railway and Power Engineering Corporation, Ltd.

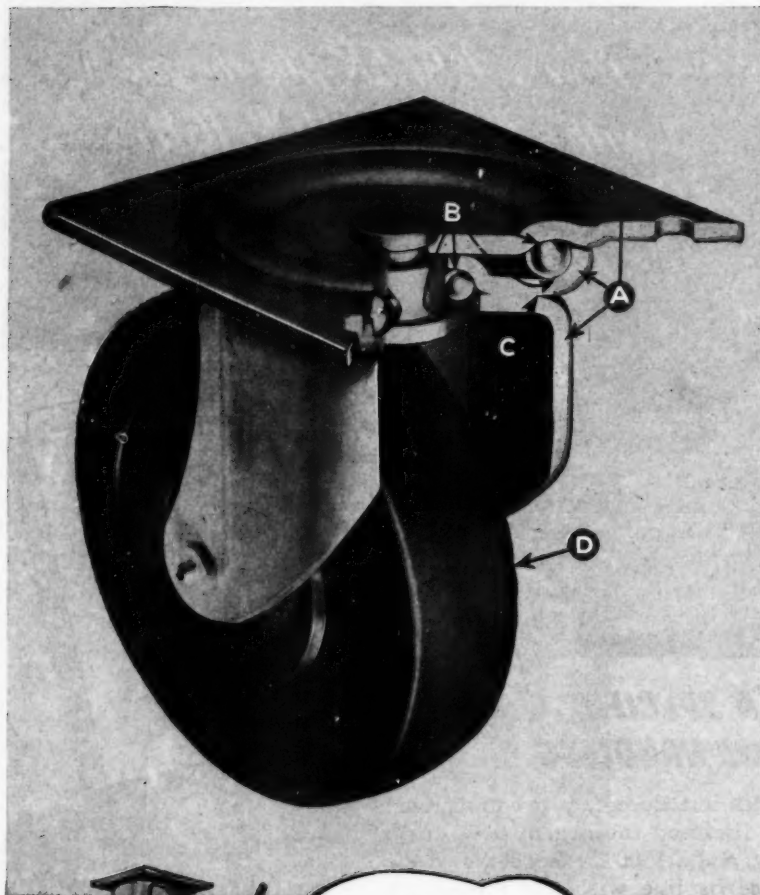


*Ideal for receiving,
warehousing, ship-
ping and other opera-
tions, where loads are
limited to 2000 lbs.*

Baker INDUSTRIAL TRUCKS

Bassick SERIES "99"

**ALL PURPOSE...GENERAL DUTY INDUSTRIAL
AND INSTITUTIONAL TRUCK CASTERS**



- A.** Heavy gauge steel.
- B.** All bearing surfaces hardened; curved bearing surfaces give line contact with ball bearings.
- C.** Projection-welded assembly.
- D.** Highest quality wheels of soft rubber tread, solid composition or semi-steel.

3 ESSENTIALS FOR ECONOMY

- 1. Longer Life**
- 2. Easier Swiveling**
- 3. Low Original Cost**

Made in sizes from 3" to 8", covering a wide range of load capacities, Bassick Series "99" Truck Casters are cutting costs in countless industrial applications. Get the whole story of how these top quality favorites in the world's greatest caster line can improve your own materials handling with easier operation, greater durability and unfailing dependability. See your Bassick representative or write to Caster Headquarters. **THE BASSICK COMPANY**, Bridgeport 2, Conn. **DIVISION OF STEWART-WARNER CORP.** In Canada — **BASSICK DIVISION, Stewart-Warner-Alemite Corp., Ltd.**, Belleville, Ontario.



**For handling
your materials
No caster's
near as fine
As Bassick's
top-grade standouts
The Series "99"!**



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LEADING INDUSTRIAL
DISTRIBUTORS**

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of Casters...
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do more**

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\$5.50 pe
Accept
at Ha

THIS MONTH'S COVER, depicting the use of modern methods and equipment, is in the spirit of this month's major theme: Men and Methods—the human equation and the mechanical in relation to basic distribution problems . . . Punch card and other progressive systems today are speeding the flow of goods through all phases of distribution, from the source of the raw materials until the finished products are in the hands of consumers. Our photographs were supplied by Remington Rand, Inc.

DISTRIBUTION AGE

The Magazine That Integrates All Phases Of Distribution

100 E. 42nd St., New York 17

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STATEMENT OF POLICY . . . Our policy is based on the premise that distribution embraces all activities incident to the movement of goods in commerce. If distribution is to be made more efficient and economical, we believe business management must consider more than sales, because more than sales are involved. Marketing, while vital, is one phase only of distribution; seven other practical activities not only are necessary but condition marketing costs. Most commodities require handling, packing, transportation, warehousing, financing, insurance, and service and maintenance of one kind or another before, during or after marketing. We regard all of those activities as essential parts of distribution. Hence, the policy of DISTRIBUTION AGE is to give its readers sound ideas and factual information on methods and practices that will help them to improve and simplify their operations and to standardize and reduce their costs in all phases of distribution.

ALONG THE WAY...OF TWA



NIGHT BEFORE CHRISTMAS (OR ANY NIGHT)

IT'S GOOD BUSINESS TO SHIP THE WAY OF TWA

THAT JOVIAL OLD GENTLEMAN CAN REALLY DO A JOB OF DISTRIBUTING GIFTS THIS YEAR. SO CAN YOU. ALL **TWA** (TRANS WORLD AIRLINE) FLIGHTS CARRY AIR CARGO... PARCEL POST...EXPRESS. BIG 4-MOTOR PLANES OPERATE ON FREQUENT OVERSEAS SCHEDULES. SEND SMALL GIFT PACKAGES BY INTERNATIONAL PARCEL POST; LARGE ONES BY **TWA** AIR CARGO. SAFE, SPEEDY, ECONOMICAL. PHONE TWA OR INTERNATIONAL FREIGHT FORWARDER FOR DETAILS.

SKY SENTINEL HE'S AGENT ON ALL **TWA** INTERNATIONAL ALL-STAR CARGO FLIGHTS...KEEPS A SHARP EYE ON SHIPMENTS...REDUCES RISK OF PILFERAGE...LOSS...DAMAGE. BUILT-IN "STRONG-BOX" PROTECTS HIGH-PREMIUM SHIPMENTS.



STREPTOMYCIN RACES AGAINST TIME

NEW DRUG DETERIORATES RAPIDLY, SO BASIC RAW STOCK IS RUSHED VIA **TWA** AIR CARGO TO PROCESSOR. PHARMACEUTICAL MANUFACTURERS ARE BIG USERS OF TWA FACILITIES. HOW CAN TWA SERVE YOU? CALL **TWA**... CARGO AGENT WILL EXPLAIN.

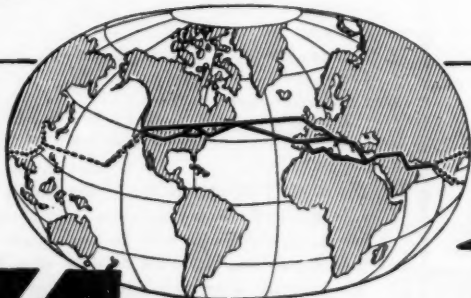


WHO SAID ELEPHANTS CAN'T FLY?

THIS ONE DID...ATTENDED G.O.P. CONVENTION IN PHILA. VIA **TWA** DOMESTIC CARGO FLIGHT. YOU CAN SHIP ALMOST ANYTHING ALMOST ANYWHERE BY TWA. RECENT MANIFEST LISTED 1200 INDIVIDUAL ITEMS. AIR CARGO RATES NOW ARE LOWEST IN **TWA** HISTORY.

SALES HORIZONS UNLIMITED

TWA direct routes to major markets of the world aid Sales Managers in expanding operations everywhere. "Delivery in a day...by TWA" creates new sales opportunities



ONLY TWA OFFERS ALL THESE INTERNATIONAL AIR CARGO SERVICES:

You can (1) reserve space for your overseas cargo, (2) send shipments collect, (3) get confirmation of arrivals at destination airports. Inquire about TWA Air Cargo NOW. See phone book and call nearest TWA office.

TWA
TRANS WORLD AIRLINE
U.S.A. • EUROPE • AFRICA • ASIA



LET YOUR LIGHT SHINE

A modest candle becomes a triumphal torch if it burns with the flame of understanding. As one candle lights another, the ever-widening beam of understanding will break like dawn upon darkness, and the victory of peace will be achieved. Man's only hope lies in peace, and the hope of peace lies in man. This Christmas season let us light our candles with understanding, carrying them to the darkest corners, so their light may shine among all men.

The Manhattan STORAGE & WAREHOUSE CO.

7th AVENUE and 52nd STREET, NEW YORK 19, N. Y. • CIRCLE 7-1700

"When they
checked with me...
...they settled on

***Electric
Trucks!***"



THAT'S testimony you'll hear—often—from industrial truck operators who know the difference. And it's a preference that means profits for owners too. For it springs from the money-saving principle of *battery-electric* drive itself, from its trouble-free simplicity, its smooth controllability, its *constant dependability*.

You'll find ownership advantages in every point that appeals to experienced operators. For example:

Smooth, Effortless Acceleration and Braking—that put the operator in full command of his truck, increase truck life and protect load and surroundings, too.

Precise, Finger-Tip Control for fast, accurate maneuverability that minimizes operator fatigue

and makes for steady, sustained tempo of useful work.

Floor-Hugging Stability—the safety that operators "feel" in handling battery-powered trucks when loads are lifted to heights common today.

Clean, Silent Power Source. Excellent working conditions for operators and others in all interiors.

In the **MATERIAL-HANDLING HANDBOOK** you will find a wealth of practical, money-saving ideas from the experience of electric truck users. Your letter will bring it, free.



THE ELECTRIC INDUSTRIAL TRUCK ASSOCIATION
29-28D Forty-first Avenue, Queens Plaza, Long Island City 1, N. Y.

Direct from your dock, Delta picks up shipments and delivers them overnight in the cities of the South. And all at rates about equal to, and often below, the total cost by first class surface means.

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Delta Air Freight is available on all scheduled passenger flights, as well as on special all-cargo "Flying Freighters." Timed just for the convenience of shippers, the "Flying Freighters" operate as a steady shuttle serving Chicago-Cincinnati-Atlanta-Birmingham-New Orleans-Dallas-Fort Worth.

Compare These Rates

Here are a few examples to show the economy of this cargo service. Pick-up and delivery is optional; you don't pay for it unless you use it.

Per 100 Pounds Air Freight
from Airport-to-Airport

Chicago-Cincinnati	\$3.07
Cincinnati-Atlanta	4.55
Atlanta-Chicago	6.55
Dallas-New Orleans.....	5.05
Cincinnati-New Orleans.	8.00
Detroit-Atlanta	6.55
Detroit-Birmingham	7.55
Fort Worth-Atlanta	8.00
New Orleans-Atlanta.....	5.05



Delta Air Freight

*Southern Extension
of your
Shipping Dock*

**Fast—Frequent—Direct
TO and THRU
the South!**

Call or Write . . .

Any Delta office will be glad to give you complete rates and schedules. From off-line points, just write: Air Freight Department, Delta Air Lines, Atlanta, Georgia.



DELTA AIR FREIGHT
takes a load off your mind

General Offices: Atlanta, Ga.



for the First Time... A RIDING TYPE STACKER *It's the Transrider!*

SIT DOWN

Everyone knows the famous Automatic TRANSTACKER... the high lift stacker that moves, lifts and stacks material with "touch of your thumb" ease.

Now, for the first time, you get all the benefits of this miracle truck, but with the added advantage that you now can RIDE it. Operator sits comfortably on the TRANSRIDER... does your material handling with utter ease, lifting, tilting and driving simultaneously.

Its batteries are interchangeable with the Transporter Motorized Hand Truck Series, and no new charging equipment is necessary.

With a telescopic lift mechanism, the Transrider raises load to 130

inches, with an overall height of only 83 inches for clearance through standard boxcar and factory doors. Single lift, before telescopic uprights are extended, is 66 inches.

The shortest of any truck of like capacity, Transrider is maneuverable in cramped working quarters. Carrying a 36-inch load, it can right-angle stack in nine-foot aisles. This means added storage space within present building capacities. Truck capacities range from 2000 pounds for 48-inch long load to 3000 pounds for a 28-inch load.

At Transrider's new, low cost, every business now can use modern, money-saving material handling methods! Mail coupon for complete facts.

**NOTHING LIKE IT FOR LOW
COST MATERIAL HANDLING**

Tilting Type TRANSTACKER

This is the famous Transtacker you walk with... and now made even more efficient with new tilting uprights that cradle the load for easier, faster spotting of loads, and maximum protection for both operator and merchandise.

High pressure hydraulic single or telescopic lift stacks your product to new heights, to increase storage capacity. Finger-tip control lifts a 36-inch, 2500-pound load, or a 48-inch, 2000-pound load in a matter of seconds. Transtacker also operates on standard batteries, and chargers, interchangeable with the Automatic Transporter. Mail coupon.



Transrider Stacker

A PRODUCT OF AUTOMATIC

*Lightens
LIFE'S LOADS*

AUTOMATIC TRANSPORTATION COMPANY

DIV. OF THE YALE & TOWNE MFG. CO.

115 West 87th Street, Dept. X-8, Chicago 20, Ill.

Please send me catalog and complete facts on the new, low-priced

- ☐ TRANSRIDER
☐ TILTING TYPE TRANSTACKER

Company Name.....

By..... Position.....

Street Address.....

City..... Zone..... State.....

MANUFACTURERS OF THE FAMOUS TRANSPORTERS, TRANSTACKERS AND SKYLIFT ELECTRIC TRUCKS

DISTRIBUTION AGE



"On long runs and over hilly country our Mack is less fatiguing to drivers because of the simple handling and remarkable efficiency of the Mack Mono-Shift transmission." Thus, A. A. Meisinger of Long Island City, N. Y., expresses his satisfaction with Mack's new Mono-Shift.

You get
more work *out of*
Mack Trucks

because...we
put more work
into Macks



Superior performance of Mack trucks is the result of uncompromising quality standards of materials, workmanship and engineering. These standards are safeguarded by the most exhaustive research, testing and inspection in the truck industry. This massive test unit, for example, is used in Mack's research laboratory to determine tensile, compression and deflection strength of materials.

Mack

trucks for every purpose



SINCE 1900, AMERICA'S HARDEST WORKING TRUCK

Mack Trucks, Inc., Empire State Building, New York 1, New York.
Factories at Allentown, Pa.; Plainfield, N. J.; New Brunswick, N. J.;
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DECEMBER, 1948

9



UP AND AWAY

to new and greater markets

via UNITED AIR FREIGHT



Someone thousands of miles away wants what you sell. And United Air Freight can deliver your products in *hours*, instead of the days that would be required by ground or sea transit. It gives you the whole world for a market!

United is the *only* airline that offers you direct service to major cities of the East, Midwest, *all* the Pacific Coast and Hawaii. Through

United's unequalled interline agreements, you can also ship to *all* major U. S. cities and to over 300 foreign cities! One air waybill is all that's necessary.

May we have a representative call — and tell you more about United Air Freight? Phone your local United office. Or write United Air Lines, Cargo Sales Division, 5959 S. Cicero Avenue, Chicago 38, Ill.



Air-borne Profits. United Air Freight means lower inventory overhead. Less warehousing cost. Better service to your customers. Faster turnover. Fresher products. Full advantage of timely items and rush demands. Savings on interest charges. And quick supply of items needed to keep production moving.

UNITED AIR LINES

Member I.A.T.A.

In Mexico, LAMSA Airlines

For Holiday Hauling **and ALL HAULING**

Many, many days and "nights before Christmas" thousands of motor trucks are as busy as old St. Nicholas himself, aiding in important holiday preparations.

The tree and its trimmings, the turkey and its fixings, the brightly wrapped gifts for dad and mother, sis and brother . . . in fact all the things we eat, wear or use at Christmas time or any time . . . are all transported by truck during some stage of their travels.

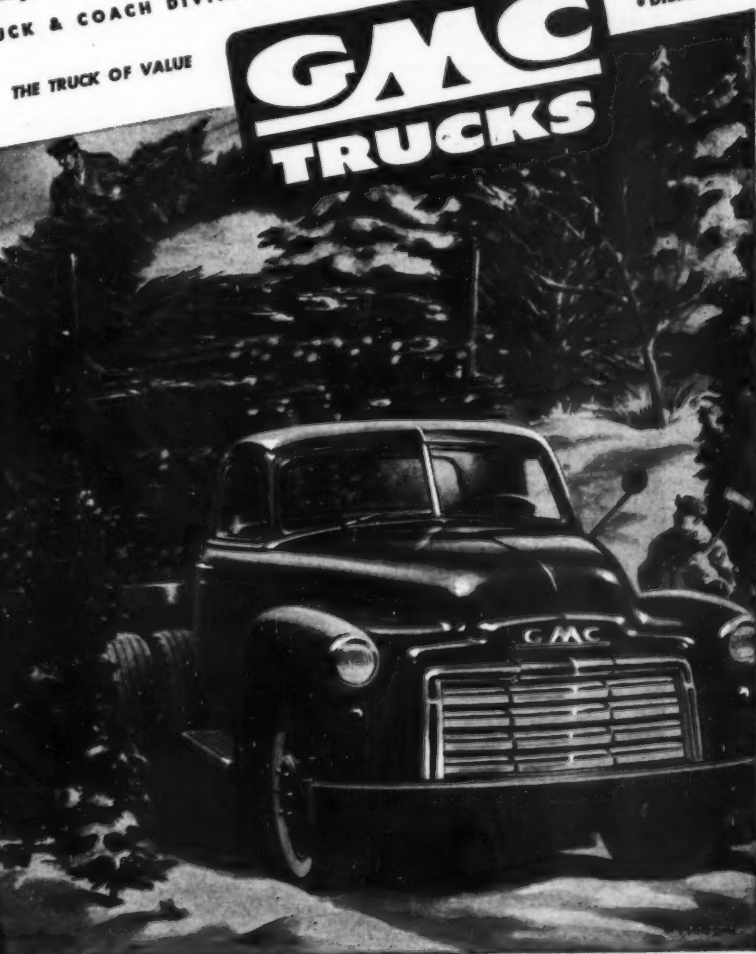
GMC trucks . . . light, medium and heavy duty, gasoline and Diesel . . . are outstanding in ability and dependability, efficiency and economy. For holidays or every day, there's a GMC ideally suited to every job.

GMC TRUCK & COACH DIVISION • GENERAL MOTORS CORPORATION

THE TRUCK OF VALUE

GMC **TRUCKS**

GASOLINE
• DIESEL



MARSHALING RESOURCES

FOR

THE

MARSHALL PLAN

AMERICA GOES ALL-OUT to speed European recovery. All manner of merchandise is being funneled into the vast Port of New York for swift trans-shipment to needy nations abroad. "Bayway"—on New York Harbor—is a vital part of this conveyor-belt. Its strategic location—within 30 minutes of Manhattan—and its varied facilities for warehousing, production, assembling, and shipping merit your careful consideration. Here's what we offer:

- ★ **More than 1,000,000 square feet of modern storage and industrial space**
- ★ **Direct delivery to-or-from railroad car, truck, or lighter**
- ★ **Largest fumigation plant on the East Coast**
- ★ **Sprinklered buildings—low insurance rates**
- ★ **Storage-in-transit arrangements from the West and South via Jersey Central Railroad to New York Harbor—protecting export rates and free lighterage**

Write today for full information concerning open and covered storage space—and "Bayway's" comprehensive services—which will prove most helpful to you.

BAYWAY

Terminal Corporation

ELIZABETH 2, NEW JERSEY
ELIZABETH 2-8450

New York Traffic Office: 65 Beaver St., New York 4, N. Y.

NEW YORK OFFICE: 2-4447



The Governor of Nevada *invites You*



VAIL PITTMAN
GOVERNOR

STATE OF NEVADA
EXECUTIVE CHAMBER
CARSON CITY

To American Industry:

With the rapid increase in population of the United States, combined with the decentralization of industry and the westward movement, Nevada is destined for great industrial expansion in the near future.

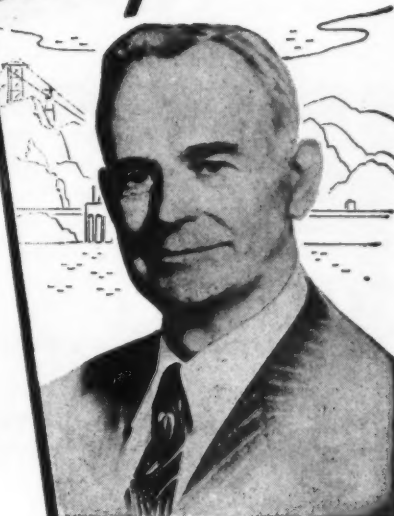
Contributing factors are:

1. Cheap hydro-electric energy
2. Raw materials, with emphasis on livestock and minerals (metallic and non-metallic)
3. Other natural resources
4. Favorable labor conditions because of friendly relationships between industry, management and labor
5. Ideal climate and exceptionally favorable working conditions
6. Nevada's tax structure:
 - No Inheritance Tax
 - No Income Tax
 - No Sales Tax
 - No Tax on Intangibles
7. Unsurpassed transportation facilities and close proximity to water.

I respectfully suggest that you investigate the opportunities and advantages Nevada offers industry for investment and expansion.

Cordially yours,

Vail Pittman
Governor



Vail Pittman

* One of a series of advertisements based on industrial opportunities in the states served by Union Pacific Railroad.

Unite with Union Pacific in selecting sites and seeking new markets in California, Colorado, Idaho, Kansas, Montana, Nebraska, Nevada, Oregon, Utah, Washington, Wyoming.

*Address Industrial Department, Union Pacific Railroad
Omaha 2, Nebraska

UNION PACIFIC RAILROAD

Road of the Daily Streamliners



"The BEST Pays Dividends!"

SAYS MOVING SPECIALIST

**ROBERT G. HAMMEL • HAMMEL MOVING
AND STORAGE • DETROIT, MICHIGAN**

"Specializing" in any field demands top methods, select personnel and the *best* in operating equipment. This is particularly true in the moving business.

Hammel Moving and Storage attributes much of its success to "hand-picked" men . . . to the special packing of goods for shipment or storage . . . to good warehousing facilities . . . to the most dependable type of Furniture Vans for transporting their loads across town or across the nation.

Hammel's newest addition to their fleet of 5 Fruehaufs is a 32-ft. Furniture Van. The balance are 28-ft. units — the first being purchased in 1943.

Records show the sales of Fruehauf Furniture Vans far exceed those of all other makes.



AGENT MEMBER
ATLAS
I.C.C. No 79658
CHARTER MEMBER

This measurement of value by "specialists" is evidence you can tie to in your appraisal of the equipment on which you will want to standardize in your fleet.

If you are not familiar with all the structural advantages which make Fruehauf the nation's top Furniture Van—just contact your nearest Factory Branch representative.

World's Largest Builders of Truck-Trailers

FRUEHAUF TRAILER COMPANY

DETROIT 32 • LOS ANGELES 11

In Canada: Weston, Ont.

79 Factory Service Branches



FIRST IN TRUCK-TRAILER TRANSPORT!

FRUEHAUF TRAILERS
"ENGINEERED TRANSPORTATION"

Hear Harrison Wood, Interpreter of World Events, Every Sunday Afternoon over ABC. Consult Your Local Paper!

EDITOR'S PAGE



"People Is Funny"

THE FIASCO of the pollsters in last month's presidential election is tending to throw doubt on the accuracy of many marketing polls employing the same techniques. Just why the pollsters failed is still the sixty-four dollar question. Perhaps the reason for this failure, volunteered by a New York taxi driver who drove us uptown in the cold grey dawn of the day after is as good as any we've heard. "People," he said, "is funny—they talk one way and act another. Take me, for example. All of them big shots who ride around in my cab make like they thought anybody who could vote for Truman was a dope! So me and the other cabbies talk Dewey and vote Truman."

A pre-election article in the Harvard Business Review, comes, in more urbane phraseology, to much the same conclusion in discussing the accuracy of marketing polls of the Gallup and Roper type. Probably, as the Review points out, the most obvious and frequently used procedure in marketing research is to ask individuals what they buy, what advertisements they have seen and heard, why they buy what they do, what types of products they like best and so on. This is a direct approach and certainly it often yields information of value. However, even with such questions, people are sometimes unwilling to give the right information. By way of example, the Review cites the answers received in one survey:

"To the question, 'Do you borrow money from a personal loan company,' all of those interviewed answered 'No.' Yet all of those interviewed were listed in the records of a local loan company as having recently borrowed money. Another example has to do with the magazines people read. The answers of a large number of people to the question, 'What magazines do you read?' if taken at face value, would lead one to believe that the Atlantic Monthly had six times its actual circulation, while the pulp magazines, printed by the millions, had almost negligible appeal. The desire not to appear 'low-brow' clearly influenced the answers to this question."

While we believe that the failure of the political pollsters can be put down to their willingness to accept at face value the answers received, we cannot help but feel that many polls and surveys in marketing and other fields are undertaken by brief-holding interests who know that with the "proper approach" they can arrive at almost any desired conclusion. Despite all this, however, the validity of those polls and surveys which

conscientiously aim at the facts and which provide all the psychological checks and counter checks of an army doctor seeking draft malingerers, must remain unchallenged.

Distribution Cost Analysis

ELSEWHERE in this issue, Charles H. Sevin, marketing economist with the Department of Commerce, presents case histories which demonstrate the substantial reduction is the cost of distribution which has been realized by some progressive companies through the application of cost analysis methods to distribution's various physical phases. Mr. Sevin's study, which cannot be reproduced in full because of its length, is largely given over to various aspects of the marketing function. It should receive the serious consideration of everyone concerned with distribution. That portion devoted to physical distribution should receive particular attention because the cost reduction opportunities which it affords are too often neglected by top management.

It is an unfortunate fact, as Mr. Sevin points out, that too few companies know what their distribution costs actually are. Consequently, they are unable to relate costs and sales volume, or evaluate the relative importance of the marketing function and the various activities which comprise physical distribution. Today, industry, faced with the possibility of a shift from a sellers' to a buyers' market, must turn its attention to physical distribution because there, as one progressive spokesman for top management has expressed it, "it will find its widest opportunity for reducing costs."

Because of the present widespread interest in distribution and the growing interest on the part of some progressive managements in more scientific cost analysis and control, we venture to predict that the time is not too far distant when virtually all firms engaged in large-scale distribution will have set up cost analysis methods, such as Mr. Sevin discusses, which will enable them to make detailed cost breakdowns of all basic functional operations. That prediction is predicated on the belief that current interest in functional costs is the beginning of a major trend. It is a most encouraging development. If intelligently pursued, it will lead to more efficient methods, lower costs and better earnings.

D.J. Witherspoon
Editor.

DA NEXT MONTH

LETTERS to the Editor

DISTRIBUTION AGE for January will present:

DISTRIBUTION TRENDS AND PREVIEWS . . . The coming year will pose many vexing distribution problems . . . Leading authorities in industry and DA staff correspondents will discuss many of the problems as they affect policy, planning and operations.

DISTRIBUTION COST ANALYSIS METHODS . . . There is a growing realization by top management of the substantial, often spectacular, distribution economies which are realizable through the application of modern scientific cost analysis methods to the various phases of physical distribution . . . Part 2 of Charles H. Sevin's distribution cost study, as it relates to physical distribution, tells in detail what some progressive companies are actually accomplishing in this field.

THE CEMENT CASE AND TRANSPORTATION . . . The implications of the Supreme Court decision in the Cement Institute case are of extremely great importance to the producers of raw materials and supplies, to manufacturers, to distributors, to consumers, and to transportation carriers of all types . . . G. Lloyd Wilson, prominent authority on transportation matters, discusses some of the changes in transportation modes that are likely to follow industry's attempt to break through the "freight rate fences" which will be set up if pricing goes F.O.B. across the board.

THE USE OF PALLETS IN TRANSPORTATION . . . Edwin C. Hastings, author of a provocative article in DA for September on the use of pallets in transportation, continues his discussion of the subject and points to the need for concerted action on the part of pallet manufacturers, shippers and materials handling equipment producers to promote the use of the palletized unit load in shipping.

PROGRESSIVE PORTS . . . Another in the series of articles discussing what some of the nation's most progressive ports are doing to provide modern terminal and handling facilities for more efficient distribution . . . DA for January will feature **NEW ORLEANS**.

Sir:

We are large shippers of foodstuffs. We have recently been told by the State of Ohio that we must pay a very large tax on shipments stored-in-transit in that state. The shipments involved were not intended to be distributed in Ohio. If this tax is found to be collectible, it will establish a precedent which may have a serious and widespread effect upon the transportation and distribution methods of ourselves and others. Your comments will be appreciated. —"Reader"

Editor's Note: We would hesitate to express an opinion without knowing more of the facts. We have, however, made inquiry as to the laws of Ohio as they may relate to the taxation of goods stored-in-transit. Under the laws of Ohio, Section 5325-1, General Code, excludes from personal property taxation merchandise or agricultural products belonging to a non-resident of the state if they are in a storage warehouse for storage purposes only.

One of our legal consultants, whose opinion was sought, states that "Taxes on goods in storage in the course of transportation imposed by states is a serious matter. There is considerable law on the subject." The point to which goods come to a rest and are no longer in the course of transportation depends upon the facts in each case. Clearly, goods that are in transportation are not property which is incorporated with other property of the state. But the point at which interstate transportation ceases and goods become property subject to state taxes is not always easy to determine. The subject is further complicated by the fact that the rules defining interstate transportation under the Interstate Commerce Act are not necessarily consistent with or supplementary to the laws of the state defining intrastate transportation or the status of property subject to taxation. I have had cases pertaining to the jurisdiction of the state with respect to petroleum stored in transit. In my studies I have found that citation of tax decisions by the state courts or by the federal courts only tends to confuse consideration of the question of jurisdiction of the Interstate Commerce Commission under the Interstate Commerce Act. Generally I would say that if a shipment is stored under a transit-in-storage tariff en-route interstate, it is not subject to state taxation, but if the shipment comes to rest and is not subject to storage-in-transit rules of the railroads, the shipper or one who is contesting the tax must prove that the shipment was intended to move interstate, and that the storage is actually only incidental to such movement.

Another of our consultants states, apropos of our "Reader's" inquiry: Here are my conclusions. The Section 5325-1 provides that merchandise and agricultural products can be stored in Ohio by non-resident owners without payment of taxes. This law means, of course, that the merchandise or agricultural products must be placed in the warehouse for storage purposes only. In other words, it is very apparent that if the goods are stored for purposes of distribution in Ohio, the same are taxable. On the other hand, there are higher courts decisions on record which hold that: If orders are taken for goods in a state, and such orders are taken by manufacturers or sellers outside the state, the goods may be shipped to a warehouseman for distribution without the goods being subject to taxation, that is, providing the manufacturer or seller has the orders at the time the goods are shipped to the warehouseman. This is "continuance" of the interstate transaction under which circumstances the state cannot exact taxation.

Now with respect to the goods or foodstuffs which your shipper shipped into Ohio without any intentions of having same delivered to buyer in Ohio. There are higher court cases which hold that if such goods are stopped in transit for sorting, rearrangement, or other definite purpose, the state may tax the goods because by this intended stoppage the interstate character of the transaction is broken.

For further comparison, so that your reader may understand all phases of the law, let us assume that while a shipment is being transported through a state, a flood makes it necessary for the carrier to unload the goods and place them in a warehouse for safe-keeping until the flood has receded, after which it is intended to re-load the goods and continue them on their journey to the original destination. Under these circumstances, the state in which the goods are temporarily stored cannot tax the goods because the storage by necessity does not break the interstate character of the interstate shipment. Hence, you state that the goods of your reader were not intended for Ohio. Therefore, it is very possible that the stoppage did not break the interstate character of the shipment and the state of Ohio cannot compel payment of taxes.

I hope the above information is such that your reader can by reference thereto determine whether he must pay the referred-to taxes, and if so by using this information he can in the future avoid taxation.



1. To help solve this plight before Christmas—

Shoppers need a lift with those gifts.

Store delivery? A welcome idea for shoppers. An opportunity for stores—especially those with International-Metro Trucks—the extra-capacity, multi-stop, all-steel, light delivery trucks that speed store deliveries.



2. To keep visions of sugar plums dancing—

A child spots a helper of Donder, Blitzen & Co., and there's Christmas in the air!

The child doesn't care that International Trucks are the "Standard of the highway." But for the International-Metro owner, that spells more deliveries, lower costs.



3. To make you proud of your family tree—

It's surrounded by gifts that were chosen with love, and delivered safely and on time for the big day!

At such a time you don't think about "more payload space for peak-load days." But that's something to remember about Internationals when you're buying trucks.

These six cylinders work harder in reindeer season...



4. To build good will toward these men—

Prompt deliveries during the Christmas rush, or any rush, build good will for store owners.

That's why so many department stores make International-Metro Trucks the backbone of their delivery fleets. They are specialized trucks designed to do a specialized job well.

5. And to emphasize, again, why this truck is a year 'round Santa—

Peak seasons in any industry spotlight efficient, modern truck delivery. That's why the International-Metro is a favorite among merchants already taking advantage of its capacity for efficient multi-stop delivery.

That's also why International Trucks are doing a big job in every

industry. Job specialization is typical of International Trucks. (Gross weight ratings range from 4,400 to 90,000 pounds.) See your International Dealer or Branch and take advantage of specialized International Trucks for specialized jobs.

P. S. And a Merry Christmas to you!



Tune in James Melton
and "Harvest of Stars,"
CBS, Wednesday evenings



INTERNATIONAL TRUCKS

MOTOR TRUCK DIVISION • INTERNATIONAL HARVESTER COMPANY • CHICAGO

See what NAILABLE STEEL FLOORING means to *Shippers*



If you ship goods in boxcars, gondolas or flatcars you'll want to know what NAILABLE STEEL FLOORING can do for shippers. Check these points that show how it can increase your car supply, cut damage to goods in transit and simplify freight handling.

INCREASED CAR AVAILABILITY

In gondolas, NAILABLE STEEL FLOORING makes an all-purpose car suitable for *any* type of freight—finished goods, rough heavy materials, fine bulk freight. It does the job of *both* wood-floor cars and conventional steel-plate-floor gondolas. Empty car switching and assembling to provide equipment for the particular lading is drastically reduced. In boxcars, too, NAILABLE STEEL FLOORING cuts car suitability problems. Unlike present flooring, it's built to *stay* in good condition for all types of freight for the life of the car. If it's a NAILABLE STEEL FLOOR you *know* it will handle the freight.

MORE PROTECTION TO LADING

With up to 400% greater nail-holding force than wood, NAILABLE STEEL FLOORING assures more

BULKHEAD BLOCKING BEING PLACED ON NAILABLE STEEL FLOORING. The channels are spaced to provide greater nail-holding force than that of wood—yet nails can be readily removed without damage to the floor. A self-sealing plastic in the nailing grooves prevents loss of fine freight carried in bulk.



secure blocking, less damage to goods in transit. No splinters or sharp edges can damage freight or injure men working in cars. Spilled liquids aren't absorbed; and can be easily cleaned off to avoid contaminating subsequent freight. When goods are shipped on NAILABLE STEEL FLOORS, there's a better chance they'll reach the consignee just as you sent them.

EASIER FREIGHT HANDLING

No need to worry about fork trucks breaking through NAILABLE STEEL FLOORING; it readily supports the largest trucks used in boxcars. Unloading with shovels, scrapers and clamshell buckets is quicker and easier, because the surface is smooth, flat and free from splinters. The same qualities provide faster and more complete car cleaning, too.

These features of NAILABLE STEEL FLOORING add up to real advantages for shippers as well as carriers. If you haven't yet seen a car equipped with NAILABLE STEEL FLOORING, and would like to, write us, and we'll let you know when there's one in your area.

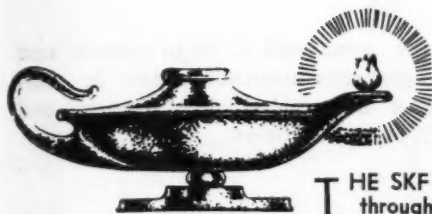
GREAT LAKES STEEL CORPORATION

Steel Floor Division, Penobscot Bldg., Detroit 26, Mich.

UNIT OF NATIONAL STEEL CORPORATION

PATENTS PENDING

MEN AND METHODS



THE SKF experiment, which aims at bettering labor-management relations through the medium of education, is worthy of the serious consideration of industry because it provides a method—and, apparently, a successful method—of “bridging the gap” of communication between men and management. The program, which concentrates on the factory foremen and the supervisors who work under them, proposes, in the words of William L. Batt, SKF president, to “forge a chain of management which will function effectively in carrying out company policies on all levels of operation, from the president’s office to the supervisor of the factory cleaning force.” The program will bear watching. If we are to lessen the economic disunity inherent in today’s diversity of interests, workers and management alike must recognize and accept the fact that certain rights and duties are fair, reasonable and necessary for the good of society.

WHEN school bells rang out across the nation in September for millions of students, they tolled also for an unusual group whose “campus” consists of the two main ball and roller bearing plants of SKF Industries, Inc., in Philadelphia. There some 200 factory foremen and supervisors heard William L. Batt, long-time president of the firm and himself an internationally-known management and production expert, open the third year of an industrial education school which is of more than usual significance because of the manner in which it is conducted and the unique industrial relations experiments that have grown out of it.

Batt explained that the goal of the SKF school, which is known as the Management Development Program, is to “forge a chain of management which will function effectively in carrying out company policies on all levels of operations, from the president’s office to the supervisor of the factory cleaning force.”

To achieve this objective, the SKF program has concentrated

on the factory foreman and the various supervisors who work with him. From September to May during the past 18 months, some 206 of SKF’s foremen and supervisors have attended 226 seminars and classes designed to instill into them the principles of Batt’s conception of a successful manager. The theme of the 1948-49 sessions is: “The Supervisor—Key to Effective Management.” Throughout the academic year at SKF, the supervisory group will study a course which Batt hopes will result in their becoming “technical progressives” in thinking, more co-operative in dealing with others, and highly conscious of costs in an industrial world where the closest attention to problems of prices is becoming more and more essential to economic survival.

Admittedly experimental, the SKF course has led top management to try some extraordinary procedures which show promise of paying unusual dividends. In one experiment conducted in the spring of 1947, factory foremen were asked to submit their ideas for changes in a new work agreement then being negotiated with

the United Steelworkers of America (CIO). The foremen turned in 98 specific written suggestions, which were then screened and handed to the company’s negotiators for consideration and discussion with the union.

In another, held during the past summer, foremen at the company’s one-year-old cast iron plant at Hornell, N. Y., were given an opportunity to attend at least one contract negotiating session held between the firm’s representatives and the International Association of Machinists. The object was to let them see and hear at first hand some of the actual problems of modern labor-management relations. Additional experiments are being tried constantly, especially in methods of “bridging the gap” of communication between men and management.

The SKF Management Development Program is directed by Harry F. Gracey, a former school teacher who went into industrial education a decade ago. His efforts at SKF were rewarded this year with his election to the presi-

(Continued on Page 32)

PUNCH-CARD ACCOUNTING PROCEDURES SP

The availability of complete figures, produced at high speeds and low costs, gives this and other concerns unusual scope in sales analysis, inventory control, general accounting, tax reports, and in facilitating warehouse and delivery operations.

By LEWIS T. BOLGER

THE distributor has taken on new importance—and new problems—in the wine and liquor industry. He is meeting some of the problems by improving his operating methods to keep distribution costs at a minimum, and he is meeting others by more detailed sales analysis to more completely exploit every market potential.

The wine and liquor distributor faces just about every problem common to the broad field of distribution—and he has a couple of special ones of his own. First of these “extras” is the fact the prices at which he can sell his commodities are largely (and strin-

gently) regulated. Then, beyond the price rules, he is subject, more than most businesses, to close federal and state supervision—as to methods of handling, promotion, display, location, operating hours, etc.

But despite all handicaps, the position of the distributor in the liquor field has been tremendously strengthened. In fact, it is one of the “burdens” that is actually one of his blessings, since the extent and variety of state and local regulations governing every factor of the business make it more logical that the channeling of this much-legislated merchandise be through the hands of on-the-scene business-

men with distribution know-how as well as local contact and intimate knowledge of regulations, trends, public policies and political pulses.

A look at the liquor industry, and at some of the high-speed, machine-efficiency methods by which it is handling its distribution, shows just what can be done—when it has to be done the hard way. And in some of the inventory control warehouse practice, route planning, sales statistics, compilation procedures there are developments of significant interest to other distributing operations.

Punched-card accounting—the

(Continued on Page 59)

WHY PUNCH CARDS?

1. This typical unit-of-stock card (Fig. 1) is the means of producing automatically and economically the great variety of invoices, tax reports, statements, sales analyses and inventory figures that are so important a part of the wine and liquor distributor's operations. The punched holes actuate high-speed sorting and alphabetical tabulating machines in performing an almost endless variety of control tasks.

2. Continuous pre-printed invoice forms, with carbon copies for shipping, delivery, credit and salesman's duplicates (Fig. 2), are handled automatically and at a rate of 100 lines of description, additions and subtractions, per minute on the alphabetical and numerical tabulator.

3. Whatever the form, punched-cards that are prepared for billing and other vital operations are also used to actuate the tabulating machines for these tax schedules.

4. Purchase analysis at Federal Wine and Liquor has been greatly speeded through use of the automatic tabulating machines for the preparation of warehouse receiving records, tax schedule purchase

reports, monthly vendor and recap of purchases reports, with all pertinent detail, extensions and totals.

5. Inventory control has been vastly improved and considerably simplified as Federal Wine and Liquor found through the use of punch card system. It is the preparation of reports (Fig. 3) such as this one that afford a variety of statistical data upon which decisions can be based and which prove valuable checks and cross-checks.

6. A monthly inventory report is prepared entirely automatically and as a by-product of the punched-cards that are initially prepared as part of invoicing and other procedures.

7. Summary cards prepared from the invoicing records are used to turn out at high speed a variety of reports and statements.

8. Another by-product of billing operations is this Monthly Customer Activity Report (Fig. 4), which shows not only how often and how much each customer bought during the 30-day period, but also just how the purchases were made—through

the salesman, by mail or by phone.

9. If sales reports (Fig. 5) are a tedious manual task they are apt to be incomplete or infrequent. Federal has them in detail and in both weekly and monthly installments, because the automatic punched-card procedure insures speed in their accumulation without any appreciable expense in their preparation.

10. There is little likelihood of anyone going to sleep on real profit items and trusting to gross sales figures to get them by when detailed information such as is contained in these monthly salesman and customer sales analysis reports is available to management.

11. A complete daily record of sales is provided in this Invoice Register form, which is also produced automatically on the alphabetical tabulator and as a by-product of summary cards.

12. Statements, trial balances, and complete Customer Cash Receipts Book records are prepared as another by-product of the summary cards. These, too, are ground out automatically and at a 100-line-a-minute clip on the tabulator.

SPEED WINE AND LIQUOR DISTRIBUTION

1051 112 5TH CORBY RESERVE

DATE	QUANTITY	PRICE	TOTAL
1051	112	5TH CORBY RESERVE	
1052	112	5TH CORBY RESERVE	
1053	112	5TH CORBY RESERVE	
1054	112	5TH CORBY RESERVE	
1055	112	5TH CORBY RESERVE	
1056	112	5TH CORBY RESERVE	
1057	112	5TH CORBY RESERVE	
1058	112	5TH CORBY RESERVE	
1059	112	5TH CORBY RESERVE	
1060	112	5TH CORBY RESERVE	
1061	112	5TH CORBY RESERVE	
1062	112	5TH CORBY RESERVE	
1063	112	5TH CORBY RESERVE	
1064	112	5TH CORBY RESERVE	
1065	112	5TH CORBY RESERVE	
1066	112	5TH CORBY RESERVE	
1067	112	5TH CORBY RESERVE	
1068	112	5TH CORBY RESERVE	
1069	112	5TH CORBY RESERVE	
1070	112	5TH CORBY RESERVE	
1071	112	5TH CORBY RESERVE	
1072	112	5TH CORBY RESERVE	
1073	112	5TH CORBY RESERVE	
1074	112	5TH CORBY RESERVE	
1075	112	5TH CORBY RESERVE	
1076	112	5TH CORBY RESERVE	
1077	112	5TH CORBY RESERVE	
1078	112	5TH CORBY RESERVE	
1079	112	5TH CORBY RESERVE	
1080	112	5TH CORBY RESERVE	
1081	112	5TH CORBY RESERVE	
1082	112	5TH CORBY RESERVE	
1083	112	5TH CORBY RESERVE	
1084	112	5TH CORBY RESERVE	
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1090	112	5TH CORBY RESERVE	
1091	112	5TH CORBY RESERVE	
1092	112	5TH CORBY RESERVE	
1093	112	5TH CORBY RESERVE	
1094	112	5TH CORBY RESERVE	
1095	112	5TH CORBY RESERVE	
1096	112	5TH CORBY RESERVE	
1097	112	5TH CORBY RESERVE	
1098	112	5TH CORBY RESERVE	
1099	112	5TH CORBY RESERVE	
1100	112	5TH CORBY RESERVE	

FEDERAL WINE & LIQUOR CO. INVOICE

210 CLERKENWELL AVENUE, JERSEY CITY 4, NEW JERSEY

TO: BETTINGERS METROPOLITAN LIQUOR CORP. 5 JOURNAL SQUARE, JERSEY CITY N.J.

DATE: NET 7 DAYS

QUANTITY: 824

PRICE: 2400

TOTAL: 3789

W21524

3

DAILY TABULATION of RECEIPTS for INCREASING INVENTORY

DATE: _____

RECEIPT NO.	VENDOR NO.	BRAND	CASES	BOTTLERS	PACK	SIZE	VENDOR NAME	STATE CO.	UNIT GALLONAGE	TOTAL GALLONAGE	UNIT PRICE	TOTAL EXTENSION	TOTAL COST
1262	16665	1001	50	12	5TH		GEO BALLANTINE						
1263	16940						WE SCOTCH	L	2400	120000	6500	325000	300000
							YILLERS						
							RESERVE	L	3000	30000	4610	46100	41100
							D BURTON						
							AND BURTON	L	2400	12000	3275	16375	14050

MONTHLY CUSTOMER ACTIVITY REPORT

CUSTOMER NUMBER	CUSTOMER NAME	DATE			AMOUNT
		TYPE OF SALE	NUMBER OF SALES	DATE	
10100	WATHERINE AHERN	1	1	1	6928
10101	LEONARD ALBRIGHT	1	1	1	14097
10102	MARK ALFERTSON	1	1	1	7020
10103	FRANK ALFERTSON	1	1	1	1650
10104	CHARLES ANDERSON	1	1	1	
10105	GEORGE ARMSTRONG	1	1	1	
10106	GENE ATWOOD	1	1	1	
10107	EDWARD AVERY	1	1	1	
10108	THOMAS BALFOUR	1	1	1	
10109	MICHAEL BARNETT	1	1	1	
10110	ALBERT BARR	1	1	1	
10111	MATTHEW BARR	1	1	1	
10112	JOHN BARRY	1	1	1	
10113	HAROLD BATES	1	1	1	
10114	HURT BAUER	1	1	1	
10115	RALPH BOYER	1	1	1	
10116	JAMES BICKHOFF	1	1	1	
10117	SUSAN BICKHOFF	1	1	1	
10118	SIMON BURN	1	1	1	
10119	JOSEPH BLACK	1	1	1	

CUSTOMER NUMBER	BRAND NUMBER	AMOUNT
61101	1001	ACE
61101	1011	BAL
61101	1020	CAL
61101	1071	GAL
61101	1311	CAR
61149		JOSE
61149	1010	CAL
61149	1020	CAL

MONTHLY CUSTOMER SALES ANALYSIS

Salesman: EDWARD ALLEN

CUSTOMER NUMBER	BRAND NUMBER	BRAND DESCRIPTION	SIZE	CASES	BOTTLES	AMOUNT
61101		ACE BAR AND GRILL				
61101	1001	BALLANTINE SCOTCH	5TH	2		13000
61101	1011	CALVERT RESERVE	5TH	2		80130
61101	1020	CALVERT SPECIAL	5TH	2		8244
61101	1071	GALLAGHER AND BURTON	5TH	2		9825
61101	1311	CAROLINA RUM	5TH	2		7844
61149		JOSEPH M BEVAN		14		38843
61149	1010	CALVERT RESERVE	BT	3		13830
61149	1020	CALVERT SPECIAL	BT	2		9276
61149	1091	SCHENLEY RESERVE	5TH	2		30130
61162		THOMAS BROUGH		10		43288
61162	1001	BALLANTINE SCOTCH	5TH	1		3288
61162	1010	CALVERT RESERVE	5TH	1		4610
						7844

THE PHYSICAL ELEMENTS OF

THERE is growing recognition on the part of progressive management of the importance of physical distribution in the marketing zone. Too often, however, management is prone when thinking of physical distribution to take into consideration only those physical activities which involve transportation, handling, packing and packaging, warehousing, maintenance, and similar activities and to overlook the multifarious activities which enter into distribution's marketing function. For example, substantial reductions in the overall cost of distribution have resulted when order preparation is in accordance with the assembly line principle, when inventory control is largely mechanized, when mechanical tabulating and punch card equipment and techniques are used in the preparation of invoices and records and when attention is given to efficient departmental layout and to the coordination of various departmental activities.

Since the internal physical organization of companies varies just as much in distribution practices as it does in financial requirements or policies, standardized practice in marketing, while desirable, is out of the question at present. For this reason, we cannot offer any standardized procedures to guide management in this important task, but we can offer a few case histories illustrating the operation of the physical functions

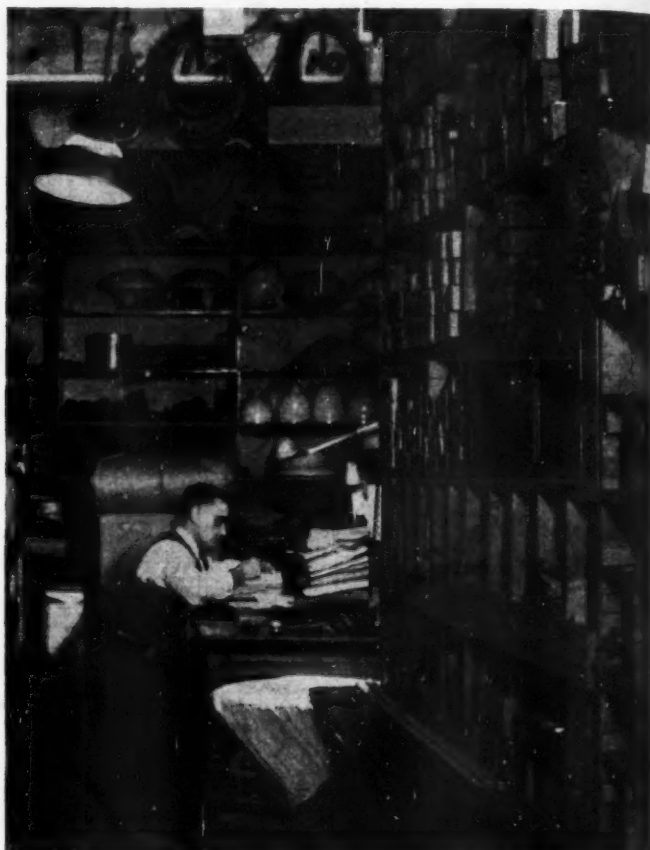


Photo Ewing Galloway.

of distribution in the marketing zone.

One company selling novelties launched a heavy direct-mail sales campaign to push a Christmas number. Production was geared to handle increased output, and inventories were increased, but physical distribution in the marketing zone was badly coordinated with other operations. The mailroom was unable to handle the heavy volume of incoming mail and parcel post shipments. Sales were lost and operations all over the plant were thrown into confusion. Something had to be done quickly or

there would have been a big loss on Christmas sales. A conference was called and it was decided that the mailroom was not up to the standard of efficiency of the other departments, and could not handle the increased volume. As in many plants, this mailroom was badly laid out. Incoming and outgoing mail should follow production-line technique, thus avoiding paralyzing jams during rush hours or in busy seasons, speeding up shipments, saving time, eliminating confusion to customers and company personnel and minimizing sales losses. This company re-ar-

MARKETING

By FRED MERISH, *Special Correspondent*

The efficient use of the physical tools of marketing can reduce overall distribution costs . . .

Such tools are calculators, office systems, punch card systems and all the multifarious devices which facilitate the coordination of marketing with other distributive phases.

ranged its mailroom so that incoming and outgoing mail were speeded up; orders were filled and shipped on time; and metered mail systems, stamping machines and other mailroom equipment were installed. Cancellations and customer complaints stopped coming in and the company had a very successful season. However, this management would have profited had it checked up on the adequacy of physical distribution in the marketing field before launching its heavy advertising campaign.

In another plant, customer turnover was high. An analysis of the drop-outs disclosed that customers were dissatisfied because they did not receive their orders complete; sometimes an order would follow in

two or more shipments, when it should have been shipped in one, increasing shipping charges to the customers. Sometimes the wrong merchandise was received, stepping up cancellations and returned goods. Investigation disclosed that many errors were being made in the shipping room because orders were flowing erratically from the company warehouse, floor space was overloaded at times, and shippers were wasting time waiting for orders from stores. A conference was called and the management installed an inter-communications system between the sales office, warehouse and shipping room, changed the layout in the warehouse and installed metal racks and conveyors for speedier filling

of orders. The order handling routine was also changed. Formerly, an order had to be billed in the sales office, then sent by messenger to the warehouse, then trucked to the shipping room, which took up considerable time and created bottle necks in the shipping room. An order is now paged by sound equipment from office to warehouse immediately upon receipt, and while it is being billed, it is being filled; a copy of the billing goes to the shipping room, reaching there with the goods from the warehouse, and shipment is made promptly under a scheduled arrangement that must be rigidly followed. As a result, shipments have been speeded up,

(Continued on Page 68)





Commodity Classification

Commodity classifications should be the well-thumbed Bible of the freight classifier. Too often he relies on rote, on imagination and on just plain hunch, with the result that costs to shippers and clients are excessive.

AMONG the prevalent abuses in the classification of freight is the familiar one of phony commodity descriptions that frequently appear in bills of lading and are carried forward to carriers waybills. To the recipients along the line they can become aggravating and a burden for the simple reason that descriptions born of indifference or ignorance are usually conspicuous by their absence in tariff publications. Frequently only a few packages are jotted down with the rest of the shipment left to the imagination.

Then there is the bad habit of some traffic minded individuals, who by training and experience should know better, to omit pertinent phraseology and clarifying features that are part and parcel of descriptions. And finally, there is that other group that has a yen for brand names, trade names, shop jargon, or resort to the use of symbols that at times resemble hieroglyphics. Carriers are equally responsible for delinquencies which occur in the classifying of freight, and contribute a generous share of errors, omissions, and other "indiscretions". A shipper may take all essential precautions to fully detail commodity descriptions that are available and to which he is reasonably and legally entitled, but in the process of carrier

waybilling activities all the prudence of shippers traffic classifier is cancelled in the shuffle. Descriptions are mutilated and abbreviated to the extent of becoming unrecognizable.

Then we have those carriers that accept shipment accompanied by descriptions that cannot be found in governing publications. Such irritants add insult to injury by compelling the consignee's classifier to probe deeply to obtain the relief that subsequent investigation may warrant. A universal practice among carriers is to apply the first class rate in absence of a description, or where the lack of clarity is such that reconciliation with the classification is difficult. It is an unwritten law, there is no authority permitting its use.

In the early days of railroading, so great was the diversity of classifications that conditions became intolerable. At a hearing by The Interstate Commerce Commission, a railroad representative testified that at one time there were as many as 138 distinct and separate classification publications in Trunk Line Territory alone. Conditions were so bad as to breed contempt, and encouraged classifying indifference.

Initially, carrier legislation made no clear-cut provision for control over classifications and practices. It was not until 1910 that the

public secured protection against abuses. The Hepburn Act was intended to remedy the evils by mandating that it shall be the duty of carriers to establish, observe and enforce just and reasonable classifications and practices relating thereto. Despite this, classifying misnomers still persist today.

Freight classifications are unique and remarkable publications, considering that they list innumerable commodities more or less alike in character. To reasonably grade the many thousand of articles associated with our economy is a delicate and difficult task. The Consolidated Freight Classification, to which I refer represents the cumulative time, thought and effort of many years. For all practical purposes, it is an encyclopaedia and mail order catalog blended into one. Despite its age it has not reached maturity; it lists commodities of old and grows in stature as science marches on in the quest for new materials and products, so it is constantly being revitalized.

The classifications having the most use today are the Consolidated Freight and National Motor Freight issues. The limited number of classification publications now prevailing, plus the high degree of perfection and dependability they reflect warrants classifying with prudence. In contrast



By CHARLES BROCKMAN

there are those careless classifiers who enter goods into transportation with utter lack of respect for the classifications.

There are obvious dangers to shippers of freight or the receivers who may be liable for the charges, in unwarranted expenses as the result of classifying delinquencies. Conditions are ripe for the carriers' practice of applying the first class rate in the absence of more tangible guides to go by. The prospect of serious financial loss is unlimited. Although selection and use of a commodity description could be the one published, there still might be one available which had a lower rating, one more befitting and legally applicable.

Bad classifying habits can reduce the opportunities of effecting worthwhile economies in transportation costs, as in not utilizing the advantages for savings that liberal mixture rules have to offer on carload and truckload quantities. Should one of the commodities of a given mixture be of sufficient weight to represent the balance of power favoring carload and truckload rates but inadvertently left without carload or truckload ratings, it would automatically deprive you of the important economies.

I would like to illustrate the consequences that would derive of such indiscretion by citing a

case history. The freight loaded in a car was 26,876 lb. Of this weight 4,753 lb., although improperly described, still had the benefit of carload rating. The balance of 22,123 lb. was without carload rating but, if intelligently classified, would have been privileged and thus permitted carload mixture rates and charges. However, the circumstances accorded the carrier no other alternative but to impose less than carload rates. Subsequent investigation revealed that the 4,753 lb. actually comprised "cotton sweepings, N.O.I.B.N.," the balance of 22,123 lb. consisting of "rags, N.O.I.B.N., compressed." The veracity of these descriptions was substantiated by a specialist in cotton and waste. As both had carload ratings and mixture rules, it became evident that the shipper's indiscretion resulted in additional freight charges approximately 200 dollars and tended to increase the purchase price of these products by .075c per lb. Other shipments of identical commodities followed under the same circumstances despite instructions to prevent a recurrence and led to excessive expenses of approximately 800 dollars.

Carriers too are financially affected by classifying delinquencies. The practice of applying the first class rate because of absent or de-

(Continued on Page 62)

THE TEN COMMANDMENTS OF COMMODITY CLASSIFICATION

1. Analyze commodities carefully before attempting to classify them, particularly a new article, or one with which you are not thoroughly familiar.

2. Study the characteristics of a commodity and the use for which it is intended. Use plays an important role in the final determination of a description and the rating it may be entitled to. While use may not always be the deciding factor, many decisions of Interstate Commerce Commission reflect its importance.

3. Consult with other engineering specialists when an article incorporates features that might be of a highly technical nature. Sometimes they can prove to be very helpful in your quest for an appropriate commodity description.

4. Refrain from acts that cause unwarranted expense, inconvenience, and other hardship to associates.

5. Turn to the classifications, when you have developed all the pertinent facts associated with the commodity, for specific coverage or N.O.I.B.N. sanction.

6. Diligence and patience are a prerequisite of a classifier of freight. Continued digging may uncover an ambiguous or generic commodity description that could be considered reasonably applicable.

7. Also available to you, with carrier approval of course, is the privilege of classifying by analogy.

8. If your opinions on classification descriptions produce qualms, there is still published the description, "Notions, N. O. I. B. N." awaiting to protect the shipper of various small useful articles.

9. In event of emergency, lacking opportunities to classify in accordance with provisions outlined, seek the advice and council of one or more carriers regularly serving you. Carriers with extensive and expansive experiences in transporting general commodities may have just the knowledge that would be the solution to your classifying problem.

10. Under no circumstances allow the nature and degree of F.O.B. terms to be the deciding factors that sway you from ethical standards of conduct. If you do, the prospects are good that you will unleash a watch dog, the Traffic Manager, to your own regret. Be ever mindful that respect of The Golden Rule has its advantages and rewards. Mutual trust, confidence and appreciation are elements worth attainment, for as ye sow so shall ye reap.

"SHIPPER'S

It is difficult to place responsibility for loss and damage to goods marked "shippers' load and count"; however, court decisions indicate that use of the term does not invalidate claims against carriers.

By G. LLOYD WILSON

Professor of Transportation and Public
Utilities, University of Pennsylvania

IN approaching this problem, the provisions of the Interstate Commerce Act and of the Bills of Lading Act should be studied, and the decisions of the courts in cases pertaining to the matter may shed some useful light.

The Interstate Commerce Act

The Interstate Commerce Act, containing the Cummins Amendment of 1915, as amended, provides that "any common carrier, railroad or transportation company subject to the provisions" of this part of the act, receiving goods for transportation in interstate commerce "shall issue a receipt or bill of lading therefor." It shall be "liable to the lawful holder thereof for any loss, damage or injury to such property caused by it or by any common carrier, railroad or transportation company to which such property shall be delivered or over whose lines such property may pass within the United States, or within an adjacent foreign country when transported on a through bill of lading." The act provides that "no contract, receipt, rule, regulation or other limitation of any character whatsoever" shall have the effect of exempting the carrier from the liability imposed by this paragraph of the act.

The Newton Amendment of 1927 broadened the basis of liability so as to make the delivering

carrier transported on a through bill of lading also liable to the lawful holder of the bill of lading on the same basis as the initial carrier which has issued the bill of lading.

Any limitation with respect to the carrier's liability, "without respect to the manner or form in which it is sought to be made is hereby declared to be unlawful and void."¹

The only limitations upon carrier's liability recognized as lawful under the Interstate Commerce Act are:

1. Loss while in the custody of a carrier by water is governed by the water carrier's bill of lading and by the laws applicable to transportation by water.
2. Limitations upon liability for baggage carried on passenger trains.
3. Property, except ordinary livestock, with respect to which declared valuations have been authorized or required by the Interstate Commerce Commission.
4. Ordinary livestock, cattle, sheep, swine, goats, horses and mules, excepting those chiefly valuable for breeding, show, racing or other special uses.²

¹ Interstate Commerce Act, Part I, Section 20, (11).

² *Ibid.*, Provisos.

The Bills of Lading Act

The Bills of Lading Act, 1916, provides that when goods are loaded by a carrier, it shall count the packages if the shipment consists of package freight, and ascertain the kind and quality if the shipment consists of bulk freight. The carrier shall not, in such cases, insert in the bill of lading or in any "notice, receipt, contract, rule, regulation or tariff," a notation "shipper's load and count" or other words of like purport, which would indicate that the goods were loaded by the shipper and that the description of the goods was made by the shipper. In case of bulk freight and freight which is not concealed by packages, these words or words of similar import shall not be used to indicate that the description was made by the shipper.

If such words are inserted in shipping documents contrary to the provisions of Section 20 of the Bills of Lading Act, they shall be treated as null and void and as if not inserted in the billing.³

Section 21 of the Bills of Lading Act provides that "when package freight or bulk freight is loaded by a shipper and the goods comprising the shipment are described in a bill of lading merely by a

³ Bills of Lading Act, Section 20, (29 Stat. La541), 1916, U.S.C. Title 49, Paragraph 100, p. 407.

LOAD and COUNT"

NEED FOR LITIGATION

Questions arising from the use of the term "shipper's load and count" on bills of lading are difficult of adjudication and settlement when claims are involved.

The problem is particularly troublesome where many shipments of identical articles of containers are made and where there are relatively small differences in the number of units shipped and received. Claims for small losses are difficult to collect because of the possibility of errors in shipping and receiving records and tallies. In the case of larger shortages, the practice of compromise settlements has grown up. The claims of individual shippers are seldom large enough to justify the expense of lawsuits. Group litigation may afford a practical remedy in some circumstances.

There is a pressing need for the higher courts to settle this vexatious problem through the medium of a test case.

statement of marks or labels upon them or upon the packages containing the goods, or by a statement that the goods are said to be goods of a certain kind or quality, or in a certain condition; or it is stated in the bill of lading that the packages are said to contain goods of a certain kind or quality or in a certain condition, or that the contents or condition of the contents of packages are unknown, or words of like purport are contained in the bill of lading, such statements, if true, shall not make liable the carrier issuing the bill of lading although the goods are not of the kind and quality, or in the condition which the marks or labels upon them indicate, or of the kind of quantity or in the condition which the marks or labels upon them indicate, or of the kind or quantity or in the condition they were said to be by the consignee."

By inserting in the bill of lading the words "shipper's weight, load and count" or words of like import, the carrier may indicate that the goods were loaded by the shipper and that the description of the goods was made by the shipper. If the statement is true, the carrier shall not be liable for damages caused by the improper loading of the shipment or by misdescription of the goods described in the bill of lading.

A proviso to Section 21 stipulates

that when the shipper of bulk freight installs and maintains adequate facilities for weighing the freight and these facilities are available to the carrier, if the carrier is given written notice by the shipper and afforded a reasonable opportunity, he shall ascertain the kind and quality of the bulk freight within a reasonable time after the written request. In such cases the carrier shall not insert in the bills of lading the words

"shipper's weight" or words of like purport. If such words are inserted by the carrier contrary to the provisions of Section 21, they are null and void and of no effect.⁴

This provision of the Bill of Lading Act appears to have the effect of preventing carriers in interstate commerce subject to the act from disavowing liability for

(Continued on Page 55)

⁴Ibid. Section 21. (39 Stat. L. 541). U.S.C. Title 49, Paragraph 101. pp. 407-409.



PICK-UP and

The nature and scope of pick-up and delivery service by the railroads are explored by Jack McCormack, free lance traffic manager . . . Carriers cannot be compelled to furnish this service, but once it is established the I. C. C. has complete jurisdiction.

By HENRY G. ELWELL
Traffic Consultant

"IN what way are ferry cars and trap cars different?" inquired Samuel Burt, treasurer of United Industries, as he and Jack McCormack, free-lance traffic manager, finished their luncheon.

With a sigh of contentment, McCormack pushed aside his empty coffee cup and replied: "There is no difference. The term trap or ferry car is applied to a car placed at an industrial or commercial house having a private siding, there loaded by a shipper with l.c.l.

(Author's Note: Names of persons and company are fictitious.)

shipments, and hauled by a carrier to its local freight or transfer station for handling and forwarding of contents.¹ It is also applied to car loaded with l.c.l. merchandise which is hauled to and placed upon the private siding of an industry or commercial house by the carrier from a local or transfer station. When such cars are loaded to a prescribed minimum, the practice has been to make no charge for the services."²

"Service of that sort must be of value to shippers and consignees who have private sidings," observed Burt.

"To be sure," McCormack answered. "As just one example, take manufactured rubber goods where trap car service of rail carriers is said to be preferred because of the free time allowed in which to consolidate shipments.³ So you see that in many instances railroads have service advantages, such as this free trap car service for less than carload shipments."⁴

"You mentioned that if ferry cars are loaded to a required minimum, it is the practice to make no charge. This implies that charges are sometimes assessed," Burt remarked.

"Exactly," said McCormack. "It generally depends on the weight loaded into a car. Trap or ferry car service is not a free service.⁵ If charges are made on a per car basis, they may be graded in accordance with amount of service required and rendered and need

DELIVERY



not be uniform at all points."⁶

"Do ferry car charges bear any relation to trucking costs in any given area?" Burt asked.

"Not at all," said McCormack. "Drayage costs do not determine the reasonableness of charges for trap car service."⁷

"Seems to me that this ferry car, or trap car, service is somewhat similar to the pick-up and delivery truck service of the railroads," Burt commented.

"Right you are," declared McCormack, "although it isn't exactly the same in several respects. For instance, under ordinary circumstances common-carrier liability ceases with placement of the car on the sidetrack for unloading.⁸ Under arrangement for pick-up and delivery service by truck it continues until final truck delivery to consignee."

"In the event a railroad refuses

to institute pick-up and store-door delivery on its line, can the Commission compel it to do so?" Burt asked.

"By no means," McCormack retorted. "The primary duty of the carrier is to furnish reasonable and adequate service and facilities, and that done, it has the right to choose its methods and its agencies.⁹ Unwilling carriers cannot be compelled to furnish or establish personal or store-door delivery of freight, at common law or under the Act.¹⁰ Provisions of the Act give the Commission complete jurisdiction over such service once established. But nowhere in the Act is there a suggestion that the requirement that carriers must furnish reasonable and adequate terminal facilities supplements the carriers' common-law obligation to such an extent that delivery to freight station or pub-

lic team track is not complete satisfaction of their lawful obligations."

"Is it possible for a rail carrier to offer the service at some points on its line and not at others?" Burt queried.

"Unquestionably," McCormack asserted. "Establishment of store-door delivery service at one point on a carrier's line and not at intermediate points does not result in violation of the long-and-short-haul provision of Section 4 of the Act.¹¹ The term 'terminal service' may also include accessorial service in the nature of the collection and delivery of freight commonly referred to as store-door delivery.¹² There is nothing in the Act to prevent the establishment of such service on the publication of charges therewith by carriers subject to the Act."

(Continued on Page 32)

GOOD PACKING P

In addition to reducing loss and damage claims, good packing tends to cut handling, transportation and warehousing costs and, ultimately, consumer prices.

By A. L. RUSSELL

Assistant Traffic Manager
Sears, Roebuck & Co.

GOOD packing pays off in repeat sales, in fewer damage claims, in fewer lost sales because of merchandise damaged on arrival, and above all, good packaging pays in customer satisfaction. Merchandise protection is important to every member of every firm. I know of no one factor that affects the cost of a product more than does improper packing. The manner in which a product is packed and packaged is particularly important to the traffic man because it affects the transportation rate to be paid on that article. Moreover, it affects the manner in which that article will be sold, its method of distribution, its warehousing, and, ultimately, the price at which it will be sold.

The question has often been asked, "What is adequate package

protection for an article to be shipped?" This is a question that cannot be answered lightly. There is no rule of thumb by which we can say one article is properly packaged and another is not. Anyone can design a package that will adequately protect an article to be shipped, no matter how many times or how roughly that article is handled. A quarter inch steel box lined with thick velvet will protect a radio in almost all transportation conditions. This same container could be used to ship hundreds of other items, but we find none of them in use today. The cost factor of the package, or in fact, the transportation cost alone, prevents its use.

Certain essential factors must be considered in the design of every package—method of trans-

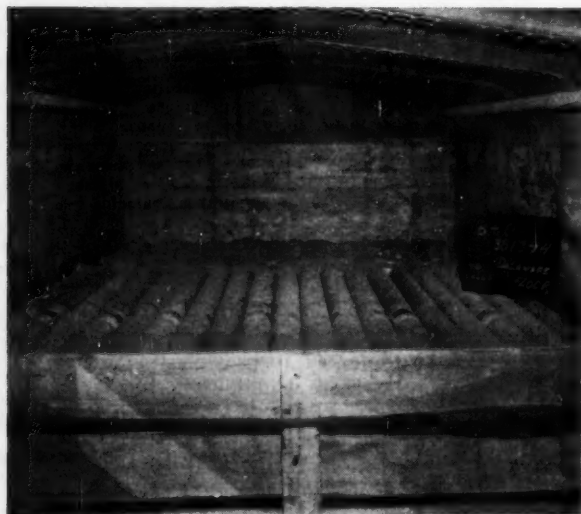
portation of the article, method of warehousing, method of distribution, sale and use of the article, and the final method of delivery to the customer. The package designer must take every one of these items into consideration.

Very few articles sold in American commerce move only once in transportation. Some move six to ten times before final delivery to the consumer. A great portion of the claims filed against the carriers can be prevented. I believe one of the biggest factors contributing to damage to the merchandise involved in these claims arises when the designer of the original package has no idea of what is going to happen to the merchandise after it leaves the factory enroute to the ultimate consumer.

The type of carrier who moves

Carload of linoleum, well packaged, well stowed and braced. Such care means satisfied shippers and consignees.

Proper packaging and bracing will prevent damage like this.



PAYS OFF

the shipments must also be considered. Steamship, rail, truck, express, parcel post, and air freight are all methods of shipment which demand varied types of packaging. Different handling and degrees of risk are encountered on different types of carriers.

Waterborne cargo is subject to greater risks, generally, than other
(Continued on Page 52)

PACKING SPECIFICATIONS			
Item	Utility Table	Mfg. No.	Cat. No. 3443
Source		Buyer	
Type Container	200 lb. last carton	Effective Date	
PACKING DETAIL			
All cartons printed two sides "Furniture fragile handle with care. Top to be printed "Top - This end up"			
CORRUGATED BOARD SPECIFICATIONS			
Material	Caliper	Weight M. Ft.	Interior Packing
Blank	.015"	47 lbs	NO/NO Jiffy Blanket
Medium	.015"	47 lbs	
Heavy	.009"	36 "	
Sears, Roebuck and Co. Furn. Dept. 601 J.L. Ware			

PACKING SPECIFICATIONS			
Item	Roebuck Desk	Mfg. No.	Cat. No. 4113
Source		Buyer	
Type Container	200 lb. Test Corrugated	Effective Date	
Regular slotted top and open bottom with 3" flaps			
PACKING DETAIL			
All cartons printed two sides "Furniture fragile handle with care - This end up" and "Top - This end up"			
CORRUGATED BOARD SPECIFICATIONS			
Material	Caliper	Weight M. Ft.	Interior Packing
Blank	.015"	47 lbs	NO/NO Jiffy Blanket
Medium	.015"	47 lbs	
Heavy	.009"	36 "	
Sears, Roebuck and Co. Furn. Dept. 601 J.L. Ware			

Typical packing specifications issued by Sears. Such specifications for manufacturers of Sears-sold items are usually tied in with the manufacturing contract.

Special products require special packing for safe delivery. For this reason, Sears has developed packing specifications for all of its diversified merchandise. These specifications leave nothing to the judgment of the packing room.

PICK-UP AND DELIVERY

(Continued from Page 29)

"On the other hand," continued McCormack, "a rail carrier has to be consistent in the operation at points where it does establish the service. This also applies to allowances granted by the railroad to shippers consignees who pick-up and deliver at the freight station. It is discriminatory to accord store-door delivery service to some and refuse it to other shippers no farther distant.¹³ Payment by a carrier of the cost of transporting one shipper's goods to or from the depot and refusal to make such payments to other shippers results in unjust discrimination when the transportation service and the rates are the same.¹⁴ Any arrangement whereby carriers might make allowances on traffic to one group of shippers greater than those on traffic to another group within the same switching district would be open to serious question under the undue prejudice and unjust discrimination provisions of the Act.¹⁵ In no case may allowances properly be granted to shippers unless the railroad actually offers the service with vehicles operated by or for it."¹⁶

"I presume that the cost of the service is included in the through freight rate per 100 lb. charged by the railroad. If I am right in that thought, does the carrier's actual cost of trucking have any direct bearing on the allowance it may make to shippers/consignees?" Burt inquired.

"You are correct as to the through freight rate ordinarily covering the entire transaction," acknowledged McCormack. "However, the store-door delivery service cost to the carrier is something else. As an illustration, the cost of pick-up and delivery is 8 cents at Minneapolis and St. Paul, and from 9 cents to 13 cents in the Chicago district, according to zone.¹⁷ At all these points the allowance to shippers or consignees when they perform the service is 5 cents. Collection and delivery being part of 'transportation' the Commission may pass on charges therefore, statute requiring such

charges shall be just and reasonable, but cost to the carriers cuts no figure in determining whether charges for the 'transportation' are just and reasonable.¹⁸ In recent years it has become customary to consider both line-haul and store-door delivery of less than carload freight as part of the same transportation.¹⁹ But whether the latter service should always be furnished or, when furnished, compensated for in the line-haul rate, is a matter to be determined only by the evidence in each individual proceeding."

"From our discussion thus far, I gather that pick-up and delivery service by the railroads is not furnished without compensation. Yet I frequently hear persons refer to it as a 'free' service. How can that be possible?" Burt exclaimed.

"To a certain extent it might be loosely considered as 'free' service, but actually it is not," McCormack explained. "Store-door delivery and pick-up service is based on a minimum freight rate. For example, if a carrier's tariff specifies 50 cents per 100 lb. as the minimum freight rate at which the service will be included, then the shipper consignee has to pay that rate per 100 lb. regardless of the fact that the applicable rate is lower.

"That reminds me," interjected Burt. "Suppose a shipper/consignee has a private siding where ferry cars can be placed and loaded or unloaded. Further assume that he wishes to have truck store-door delivery and pick-up service rather than ferry car placements. Can he refuse to accept ferry cars and insist on the other type of service for his in bound and outbound l.e.l. consignments?"²⁰

"From a competitive point of view," McCormack insisted, "pick-up and delivery must be supplied if railroads are to retain their present shrunken volume of less than carload tonnage. Then, too, by the use of trucks operating economy of pick-up and delivery will grow out of speedier movement through terminals, reduction of hazard of theft or damage, reduction of station space required for warehousing; discontinuance of certain freight stations will reduce cost of terminal switching and handling charges."²¹

"Your statement is well put, but it doesn't answer my question," protested Burt.

"That's just it," grinned McCormack. "I purposely stressed the importance of the service to a railroad to indicate why it should cooperate with a shipper/consignee. In direct reply to your question I'll quote from an agency

(Continued on Page 58)

MEN AND METHODS

(Continued from Page 19)

dency of the Pennsylvania Management Training Directors Association. In setting up the SKF program in 1946, Gracey began by conducting a survey to determine first what the supervisors themselves felt they needed to help them in their jobs. The biggest single need, the survey revealed, was in the field of human relations. Supervisors also wanted help in knowing and understanding their responsibilities, in directing their skills and techniques and in understanding the intricate problems of cost control.

Accordingly, Gracey organized his course along a master plan aimed at assisting every member

of factory management to develop his individual abilities to the fullest degree. The supervisors are not required to pursue a predetermined course of self-development. The matter is left up to the individual, so that he can voluntarily so enlarge his own sphere of activity within the company that his efforts are bound to gain recognition. Gracey defines the program as "adult education where a man with ambition and determination can reach his own fullness of maturity with expert guidance when he wants and asks for it." In line with the results of the initial survey, "Responsibility Seminars" were set up at which supervisors outlined, both to their superiors and to each other, from

(Continued on Page 73)

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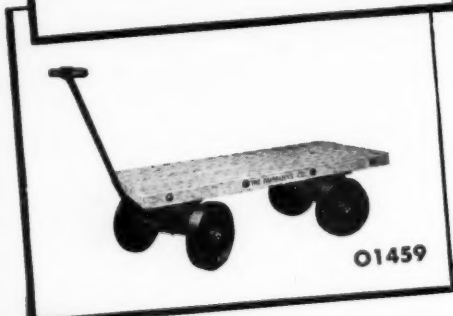
MQ 2448



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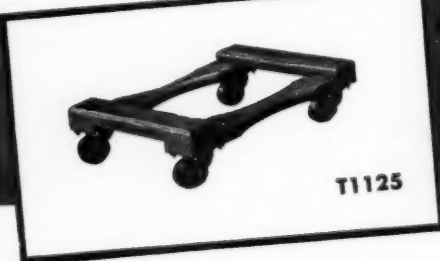
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MQ 2448 Commander Steel Frame Platform Truck. Hardwood platforms securely bolted between heavy angle irons; ends and sides armored to assure long life. Heavy duty, double ball bearing, semi-steel casters provide easy rolling and steering. Sizes 24" x 48" to 36" x 72".

S2742A Commander Steel Frame Platform Truck. Identical in general construction features with the Q type truck, but is Tilting or Center Balance Type for quick turning in small space, around sharp corners, etc. Turns in its own length, pushes from either end. Sizes 27" x 42" to 30" x 60".

S4681 Factory Truck. Hardwood construction throughout, ball bearing swivel type casters. Balances on center wheels. A lightweight, durable, easy-to-operate truck that handles light, bulky loads with unusual facil-

ity. Wooden stakes are removable. Sizes 24" x 48" to 36" x 60".

O1459 Heavy Duty Wagon Truck. Capacity four tons. Extra strong construction throughout, including two 3" x 1" solid iron cross sills. Wheels are broad faced for easier starting and rolling under full load. Sizes 36" x 72".

500-7 Lift Jack Platform Truck. Lifts and rolls easily with heavy loads. Ideal for small spaces, eliminates many handling processes. Powerful jack operates by merely pulling handle down. To remove jack, handle lifts up, jack rolls out. Size 30" x 48".

T1125 A rugged wooden frame dolly with side bars shaped to conform to the hand. Four ball bearing swivel casters. For quick, easy handling of refrigerators, furniture, boxes, long cases.

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fairbanks
trucks

PROGRESSIVE PORTS



General view of the Port of Los Angeles. Los Angeles Harbor will soon have a Foreign Trade Zone alongside the transit shed and warehouse shown at right center. The only existing west coast free trade zone is found in San Francisco.

... this month LOS ANGELES

The Port of Los Angeles, commercial funnel for the Southwest's 18 million people, is rebuilding and expanding. The Harbor Commissioners have set aside \$11 million solely for new construction. The rich trade potential of the East promises a bright future for the queen port of the Southwest.

CONTINUING the 50-year program that has earned for Los Angeles Harbor the title, "planned and built for shipping," the Board of Harbor Commissioners has set aside 11 million dollars for new construction. In progress now is the construction of modern passenger freight terminals at an estimated cost of 4.3 million dollars. This project includes a wharf, 1400 ft. long, as well as two transit sheds. Nearing completion is a 1.5 million dollar concrete wharf and transit shed extension. This structure will be a modern general cargo terminal joining existing terminals and adding

greatly to their efficiency in operation.

Work involved on the project includes the construction of a concrete wharf 812 ft. in length, a steel frame concrete 764 ft. transit shed with office facilities on the water side, railroad tracks and other improvements. The completed extension will provide berth space for two freight vessels and will be served by high-line and low-line trackage. Ample storage space will be available at the rear of the terminal.

For several years, the Port of Los Angeles has been the ranking fishing port of the United States,

both in weight of fish landed and in the value of the catch. To provide berthing space for vessels serving this big industry at the port, the Board of Harbor Commissioners has under construction a new concrete wharf off the main channel. The wharf is 2,096 ft. long and 40 ft. wide and its total cost is 1.3 million dollars. A sum of 650 thousand dollars will be spent for new municipal fish markets on the main channel. These are estimated to cost 412 thousand dollars and the concrete wharf adjoining them will cost 238 thousand dollars.

Another improvement currently
(Continued on Page 54)

Are Warehousing Costs

Scientific, company-wide cost analysis studies will provide the answer to excessive warehousing costs . . . These case histories, forming part of a new government distribution cost study, demonstrate what is actually being done in the realm of physical distribution.

By **CHARLES H. SEVIN**

Marketing Division, Department of Commerce

MOST companies have no scientific basis for the allocation of distribution costs. Managements of most firms measure the success of their marketing efforts—in "normal" times—solely by total sales volume and total net profit. Most managements lack knowledge about the disproportionate spreading of their marketing efforts because of the difficulty of relating sales results to amounts spent. The Department of Commerce study, "How Manufacturers Reduce Their Distribution Costs," undertaken under the able direction of Charles H. Sevin, of the Marketing Division, had as its objective the presentation of a factual description of distribution cost analysis methods which are actually being used by some progressive manufacturers and the results they achieved in their use.

The report consists of a number of case studies which demonstrate that there is a practical solution to the losses occasioned by the fact that in every business there are sales which are much more profitable than the company average and a sizeable proportion of other sales which are much less profitable. Despite the fact that this disparity is a basic fact of business life which marketing executives encounter every day, a solution, as the report points out, has been reached by only a few companies. The report, which covers a broad range of marketing activities, should have the earnest consideration of management.

Because of the fact that substantial, often spectacular economies, are realizable in the too often neglected "twilight zone" of distribution where marketing executives leave off and operating executives take up, we feel that a useful purpose will be served in reprinting that portion of Mr. Sevin's report which is devoted to the purely physical phases of distribution.

AN important course of action for reducing marketing costs—is to make cost studies of the performance of internal or physical distributive functions, such as storage, inventory control of finished goods, order assembly, billing, receiving, shipping, and delivery. Many manufacturers have found that there are important opportunities for eliminating inefficiencies in the performance of these distributive functions.

Some manufacturers, paradoxically perhaps, have benefitted from the experience of progressive wholesalers in improving their physical distributive operations.

For instance, the modern, one-story, streamlined warehouse building in the wholesale grocery trade is an outstanding example of how efficiency can be improved and costs reduced. Here orders are made up according to the assembly line principle and mechanical tabulating equipment is used for preparing invoices, making sales analyses, and for perpetual inventory control.

The experiences of the manufacturers described show that there are many practical possibilities for reducing costs by eliminating inefficiencies in physical distributive functions.

Case No. 25: A study by this

company revealed that it cost more than twice as much to handle the same amount of the same kind of merchandise in one company warehouse as in another. Remedial actions resulted in net annual savings of 70,000 dollars.

From a detailed study of our warehousing costs we learned that considerable variations existed from warehouse to warehouse in the cost of handling a ton of merchandise. To illustrate the pattern on an index basis, with our national average as 100, we found that one of our warehouses could handle a ton of freight for 68 percent of the average, whereas another required 146 percent of average. The question of why it cost more than twice as much to handle the same amount of the same kind of merchandise in two warehouses was obviously worth exploring.

Our warehouse studies led us to establish standards for warehouse operation. When we measured existing warehouse staffs against labor standards, we found that some of our warehouses were overstaffed. It was discovered that the warehouse where our costs were 46 percent above the national average had just twice as many warehousemen as the volume of merchandise handled should require. An actual reduction of 25,000 dollars a year in warehouse expense as a result of this analysis was achieved immediately.

How many warehouses should you have and where should they be located? When we asked ourselves these questions, we started

Excessive?



from a situation in which one of our 19 district warehouses served an area representing about 15 per cent of the market, whereas several others each served territories representing less than 3 per cent of either potential or present volume. Could we eliminate one or more of the 19 warehouses?

Answering a question of this type is a long-term operation. Our study considered existing leases, alternate space availabilities, building costs and material availabilities, the capital investment required to build, and so on. Analysis of this problem has so far de-

veloped the information that one of the 19 district warehouses can be eliminated in the near future, with an annual net saving of 11,000 dollars. Incidentally, the warehouse in question was one serving a relatively large share of the market. Size alone is just part of the problem.

This 11,000 dollars attainable saving, plus the 25,000 dollar reduction in warehouse labor cost already mentioned, plus a series of changes in our method of serving certain territories and certain types of customers has added up to a net saving of 70,000 dollars a

year at present volume levels, without capital investment. It will be a year or so before this saving can be entirely realized, but the plans are laid and the machinery is in motion.

We are continuing our study of warehouse operations, locations, and methods, because we feel that there are substantial additional savings possible in the cost of those factors.

Case No. 2: In this company's highest-cost warehouse, the cost per case of merchandise handled was more than eight times that of the lowest-cost warehouse. A typical case of merchandise was physically handled 14 times before it was delivered to a customer. By using pallets and fork trucks, this was reduced to three handlings, with a warehouse-labor savings of 9 cents per case. These and other savings

(Continued on Page 62)

BIG regulation...



...LITTLE control

THE General Rate Committee of the Eastern Motor Freight Conference is preparing to file a petition with the ICC, seeking authorization for a blank increase of 25 percent in maximum class rates, as prescribed in Ex Parte MC-22. In order to ameliorate the present financial plight of the carriers, a class rate interim adjustment, in sufficient amount to assure solvency of the carriers, is also sought. The General Rate Committee will also request:

That commodity rates be increased concurrently and be not less than the same percentage amounts as class rates are increased;

That pending adjudication, the Commission prohibit the filing of reductions in rates excepting the proposed reduced rates for filing to meet the rate of a competitive carrier and that the Commission require justification for any such reduction;

That the Commission require each motor carrier within the area of Ex Parte MC-22 to show cause why their commodity rates should not be cancelled;

That class rates found to be reasonable and commodity rates found to be just after investigation of their status to be prescribed as minimum rates;

That for the purpose of uniformity of interstate and intrastate transportation, all rates within the New England states shall be increased by the respective controlling Public Utilities bodies and Interstate Commerce Commission to the same amounts.

It is expected that the petition will receive consideration by the Commission within three months after presentation.

Truckers are squeezed between inflexible government regulations and the increasing costs of operation, which too often are difficult to predict under present conditions in the labor and materials markets . . . To counterbalance this situation, government must recognize the vital role of the truckers in our economy, and give them the consideration now given the railroads.

By ROBERT F. ODELL

THE basic plan for the regulation of the motor carrier industry was and still is very sound. In the late nineteen twenties and early thirties, those who were in the trucking business were out to make a living as best they could, and the only way that seemed open was to go into a "price war" to obtain business. Conditions were really chaotic, and the usual procedure in trying to sell an account was to find out what rate the shipper was paying and then cut it a penny or more. Nothing could have been more conducive to bankruptcy than that, but somehow most of us survived.

Then along came the Motor Carrier Act of 1935 and the truckers were to have their house put in order. It was a very good idea because that house certainly needed

a cleaning. All the legitimate carriers who were trying to do a good job welcomed the advent of regulation. At last we were going to quote rates without fear that the next man would underquote, and would be able to establish certain standards of practices and operations which would inure to the benefit of both the shippers and the carriers. The day of reckoning for the unscrupulous operator had arrived. Associations set up their tariff bureaus, individuals went to work on their rates and charges, and the practitioners got busy acquiring rights and routes for their clients.

It took a couple of years before industry was on an even keel; and after that the truckers expected to

(Continued on Page 66)



**Drivers go for its all-weather comfort and performance
...it's a new 1949 Studebaker truck!**



Builders like the new 1949 Studebaker pick-up trucks! Easy-loading pick-up bodies are standard on the half-ton, three-quarter-ton and one-ton models. Powerful 1½-ton and two-ton models serve larger load requirements. New "lift-the-hood" accessibility puts every adjustment point within easy reach. Instrument panel wiring and connections are on engine side—no need to fumble under dash.

WATCH the men around a loading dock when a revolutionary new 1949 Studebaker truck wheels up. How their faces beam at the sight of it!

It's more than America's newest truck—it already has a reputation as big as all outdoors!

There's a new sure-footedness in these new Studebaker '49ers—the cab steps are fully enclosed! No risky climbing to get in and out. The floors are low—the doors swing wide and have automatic "hold-open" stops!

Foot-controlled "air scoop" ventilators and adjustable window wings keep out rain, sleet, snow! Studebaker's amazing Truck Climatizer, available at extra cost, provides dependable

cab heating and defrosting.

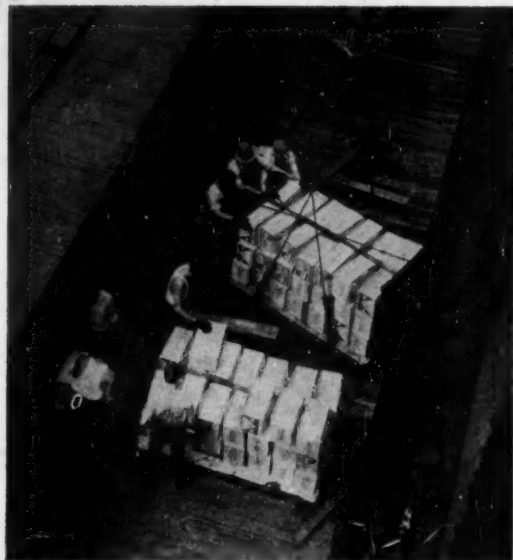
Unique Studebaker variable ratio steering builds up tremendous extra leverage when parking or rounding corners! New wide-base rims reduce roll on curves! New oversize windows and windshield increase visibility nearly 23%!

Set your sights on America's newest and finest if you're buying a new truck! Stop in now and see the revolutionary new 1949 Studebaker trucks—outstanding in low-cost operation!

**STUDEBAKER
TRUCKS**

NOTED FOR LOW-COST OPERATION

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IMPROVING SHIPPING PRACTICES

By RANDALL R. HOWARD

Special Correspondent

The rail and truck carriers are actively cooperating with shippers and claims organizations to reduce freight loss and damage. This coordinated effort may prove the answer to a problem that has long plagued the transportation and packaging industries.

SEVERAL group activities now under way in the Chicago industrial area seemingly prove that both the motor freight carriers and the rail carriers are anxious to improve their transportation services to shippers.

These carrier activities especially include programs to cooperate with shippers in practical programs to aid in the control of loss and damage to less-truckload and less-carload shipments. Their respective plans are to accomplish this through increased cooperative attention to protective packaging, package markings, correct weighing, platform handling, loading and storage, checking of deliveries, consignee receipts, immediate damage inspections, prompt submission and settlement of claims.

Outstanding examples of these Chicago groups are:

1. Inspection and Weighing Bureau of the Central Motor Freight Assn., affiliated with the American Trucking Assns.
2. Midwest Group of the National Shippers Advisory Board, cooperating with the Freight Claim Div. of the Assn. of American Railroads.

3. Industrial Traffic Council of Chicago Assn. of Commerce and Industry.

4. Chicago Claims Prevention Bureau, affiliated with the A.T.A. National Claims Prevention Bureau.

The C.M.F.A. Inspection and Weighing Bureau has been active in Chicago for about three years. But Manager John N. Strickler, with a small office force and five inspectors who operate on schedule in Chicago and the state of Illinois, considers the bureau understaffed as compared with field service needs.

During their last fiscal year ending Mar. 31, the Bureau made 1,324 inspections at carriers terminals, and examined 44,620 freight bills or bills of lading. This included inspection of 3,039 shipments, 499 of which were made at premises of shippers or consignees. These inspections disclosed 1,608 errors. Most of these were in description of shipments, 148 were in packing, 31 in marking, and 24 in weight of shipments. Thirty-six of the inspections involved claims. Also, there were 131 miscellaneous errors, many of

which involved mistakes by the carriers but did not concern a shipper. Many of the problems involving classification of goods were controversial, but it was necessary to submit only 5% of them on to the National Classification Board. There were 36 inspections which involved claims, mostly requiring examination of shippers' records to determine the true nature of articles shipped. In practice, an inspector often will spend a week or more at a single terminal, during which he can examine most of the usual traffic handled, and detect errors and faults of both the carrier and his shippers.

A total of 42 percent of all shipments examined were found in need of some form of correction, but not all of the corrections involved carrier revenue changes. Three and six tenths percent of shipments reported by bills examined were found either inaccurately, incompletely or incorrectly described. Shippers were advised of corrections made or of irregularities in packing and marking, and copies of such corrections were sent to the carriers involved.

(Continued on Page 70)

TRUCK BODIES *by Fruehauf!* What about PRICE?



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serving:**

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- Beer, Liquor and Soft Drink Distributors
- Food Processors and Distributors
- Department Stores
- Furniture Stores
- Electric Supply Houses
- Frozen Food Haulers
- Meat Packers
- Confectioners
- Building Supply Houses
- Milk Distributors
- Railroads
- Chemical Manufacturers
- Wholesale Grocers
- Florists
- Paper Mills
- Poultry Suppliers
- Farm Produce Haulers
- Express Companies, etc.

★
FRUEHAUF

COST-CONSCIOUS fleet operators who have been buying custom-built truck bodies have now found new economies in the Fruehauf Truck Body Line. In some cases Fruehauf prices were little more than half the amount they'd been paying.

Others who formerly bought mass-produced bodies are discovering Fruehauf Bodies are surprisingly low in price for a finer, sturdier unit styled to their operation.

But how can Fruehauf sell for less? The answer lies in these factors:
(1) The modern mass-production

plant at Kansas City with its latest type precision, labor-saving machinery. (2) Fruehauf's big-scale purchasing of raw materials. (3) Trailer body-building "know-how" incorporated in Truck-Body manufacturing. (4) Well established nation-wide distribution and service.

The most convincing proof of Fruehauf value superiority is best determined by comparison. So when you contemplate the purchase of any Truck Body get 2 bids with complete specifications — and be sure one is Fruehauf.

**BODY DIVISION
FRUEHAUF TRAILER COMPANY
DETROIT 32**

**CUSTOM-BUILT QUALITY AT
PRODUCTION-LINE PRICES**

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AIR EXPRESS and REA

By JOHN H. FREDERICK
Aircargo Consultant



AS part of its study of freight forwarding in air transportation the Civil Aeronautics Board has recently had the operations of Railway Express Agency and its handling of air express under review. In its decision in the freight forwarder case, handed down in September, the CAB concludes that the air express services now being performed by REA meet the public need that the public interest requires the continuance of such services. It was pointed out by the Board that even the certificated airlines, who opposed REA's application for a larger and more permanent authorization, admitted that the air express services of REA are in the public interest and joined in a request that such operations be continued until the airlines, as a group, are ready to take over all air express operations. No date was, however, suggested for such a "taking over" and it would appear that it will not be reached very soon. Certainly the services performed by Air Cargo, Inc. for the airlines are not the same as those now rendered by REA and would not meet the public need for an air express service such as the latter performs.

In answer to contentions frequently made that the railroad ownership of REA might have an adverse effect on the development

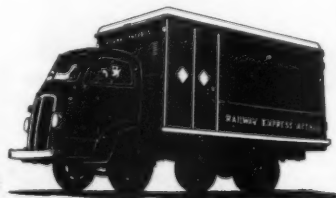
A recent CAB decision finds the REA pick-up and delivery services are in the public interest and should be continued . . . Dr. Frederick discusses this decision in the light of some of the certificated airlines plans for organizing their own ground services.

of the air express potential and might be inconsistent with the public interest, the Board pointed out that it had been unable to find any indication that the railroads, through their ownership of REA's stock and control of its directorate, had inhibited or restricted air express operations to date. On the contrary, it was shown that REA has joined with the airlines in authorizing the expenditure of large sums of money from gross air express revenues for advertising and promotional purposes and within its own organization has actively and consistently encouraged the solicitation and development of air express. The Board stated that: "The present volume of air express business and its continued steady growth provide convincing evidence that railroad ownership and control of REA have not been inconsistent with the public interest, and no tangible evidence has been adduced which would support apprehensions as to the future."

The Board decided, however, that the terms of the present air

express contracts with the airlines are not entirely satisfactory and that renegotiations would be in order. For one thing, the determination and allocation of "out-of-pocket costs", which are guaranteed to REA under the present agreement have given rise to controversy between the airlines and REA. Complaint is also made that REA's accounting system has become outmoded and does not meet the standards of modern accounting practices; that its operating methods are not such as are conducive to the fullest development of the air express potential; that its operating costs are too high; and that proper allocation of these costs has not been made

(Continued on Page 64)



DON'T LET WINTER SLOW DOWN YOUR SHIPPING!

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**Your cargo moves swiftly and easily,
far above surface transportation handicaps**

It's Economical—The speed, efficiency and directness of American's Airfreight reduce "hidden transportation costs." When you *look behind the tariff*, you'll see that Airfreight is more economical, in many cases, than slower, surface transportation. You can operate on smaller inventories . . . save on warehousing expenses . . . avert losses through spoilage and obsolescence.

It's Creative—American's Airfreight can be your key to new and more profitable distribution and merchandising. Its speed frees the capital that otherwise is "frozen" on slow shipments. You get faster, more frequent capital turnover. You can widen present markets and build new markets, through day-in, day-out use of Airfreight.

It's Convenient—Fast and frequent American Airlines Flagship flights on American's far-flung routes insure prompt service. Pickup arrangements are simple and paper work is kept to a minimum.

It's Dependable—American's years of leadership in air transport stand behind every shipment carried. American was *first* with Airfreight and continues first in service.

Find out for yourself how American's Airfreight can work for you. Call the nearest American Airlines office or write to American Airlines, Inc., 100 East 42 Street, New York 17, N. Y.

AMERICAN AIRLINES Airfreight

HANDLING L. C. L. ON PALLETS

While most railroads are still limiting the use of modern materials handling equipment to their stores department, the Chicago and Eastern Illinois is applying lift trucks and pallets to l.c.l. shipments with beneficial results . . . More widespread application of up-to-date equipment and methods plus thorough-going cooperation and experimentation by users and manufacturers will speed the solution of the l.c.l. problem.

MUCH has been written and published in *DISTRIBUTION AGE*, about fork trucks and pallets, particularly on the economies obtained through the use of this type of equipment in industry and transportation.

DISTRIBUTION AGE has also stressed the need of handling l.c.l. freight by means of pallets, and recently discussed the use of fork trucks with accessories, such as load-grabs, crane booms, etc., for

handling l.c.l. shipments.

When a subject as important as this segment of the materials handling phase of distribution is under consideration, it is necessary to keep in touch with contemporary literature in order to know what is being done by others. Since the railroads are vitally interested in the handling of l.c.l. on pallets it was natural for a railroad trade publication to publish an article on this

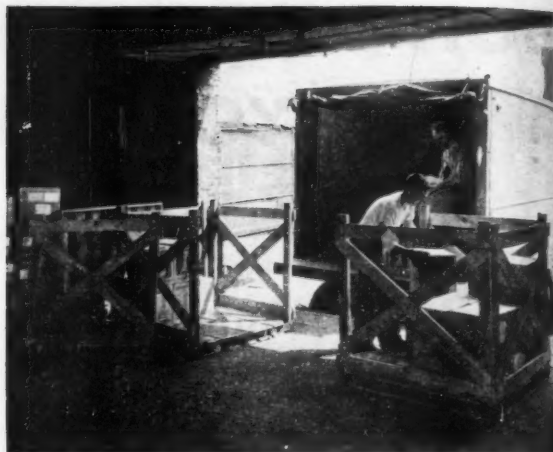
subject.*

When we consider that millions of tons of l.c.l. freight are handled yearly by the railroads of the U. S. A., it is not difficult to recognize that they have a materials handling problem, carloading and

(Continued on Page 46)

*"Railways Purchases and Stores"; see article in the October issue by John T. Turner, Manager of l.c.l., Chicago and Eastern Illinois Railroad. The publication has graciously permitted us to quote from the article at length.

Distribution of freight into containers as it is received at the freight station from highway trucks. Containers are 48 in. x 48 in. and collapsible for return to the shipping point when empty.



After the container is loaded, incoming freight is moved to freight house storage or direct to car with a powered hand-type fork truck.

By MATTHEW W. POTTS
Materials Handling Consultant



The powered hand fork truck has sufficient capacity to tier the loaded pallet-containers in the freight car.

AUTOMATIC FORK TRUCK



AUTOMATIC TRANSPORTER



Move materials faster, safer and at a saving with **Battery Electric Trucks and EXIDE-IRONCLAD BATTERIES**

Put battery electric trucks to work saving and earning for you. In thousands of plants, with material handling problems like yours, they are helping to boost production and cut costs. In fact, industrial management has found that materials handling is one of the few remaining fields where major economies can be effected.

Battery Electric Trucks can save time, manpower and money for you in loading and unloading cars and trucks... in handling materials in process... in hauling and tiering in warehouse... in every materials

handling job from receiving to shipping. And for dependable, long-lasting power, equip your trucks with Exide-Ironclad Batteries, the batteries that assure full shift dependability, day after day, year after year.

Exide-Ironclad Batteries have ALL FOUR of the vital characteristics of an efficient storage battery—high power ability, high electrical efficiency, ruggedness and long life.

Write for further particulars and FREE copy of Exide-Ironclad Topics. It covers latest developments in materials handling and shows actual case histories.

DEPENDABLE POWER



1888... Dependable Batteries for 60 Years... 1948

THE ELECTRIC STORAGE BATTERY COMPANY, Philadelphia 32 • Exide Batteries of Canada, Limited, Toronto,

HANDLING L.C.L. ON PALLETS

(Continued from Page 44)

unloading problems, and truck loading and unloading problems, which could be materially reduced if better methods were employed. A number of railroads have been working through their stores departments in developing modern materials handling methods, and have done an outstanding job in using fork trucks and pallets for storage, handling, etc. They have also gone so far, in some of the stores departments, as to receive materials on pallets and to transship between railroad storage points on pallets. However, as Mr. Turner points out, the operating departments of most railroads have lagged far behind the foremost manufacturing industries, as well as their own stores departments, in the application of modern materials handling methods to handling revenue freight traffic.

L.c.l. freight consists of a wide variety of packages with small units not more than 6 in. sq., up to large crated machines. For this reason, the average railroad man has attacked the problem from a negative point of view rather than a positive one, always feeling that the fork truck and pallet idea is a fine thing to use when containers are standard and can be made to fit pallets, but it is not good when packages of miscellaneous sizes and shapes must be handled, or where

shipments will not fit on pallets due to their length.

Mr. Turner states: "Probably 20 per cent of the l.c.l. shipments are of such length or size that they will not fit on a pallet, but how about the other 80 per cent for which a pallet can be used? Why not take advantage of the great possible economies which can be made for that large percentage of the total l.c.l. handling?" In view of the above, the C. & E. I. Railroad has started an experimental operation in pallet-fork-lift handling of l.c.l. shipments, and we wish to emphasize that this is an experimental operation which will no doubt lead to future developments, and improvements. It is expected that the C. & E. I. will continue these experiments in order to determine whether or not this system can be used on this important branch of railroad operations.

Every shipper, every warehouseman, every manufacturer of materials handling equipment should be vitally interested in this experimental operation, and should read with interest the following portions of this article, and study the pictures carefully. If these shippers have anything to contribute to the ideas advanced, based on their own experience, DISTRIBUTION AGE will be glad to

consider this information with a view to presentation.

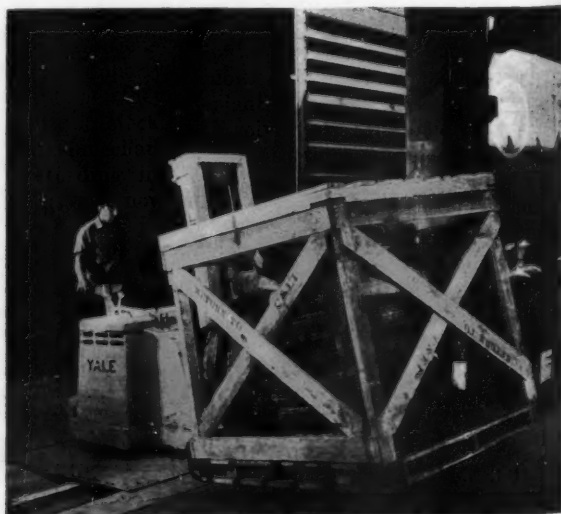
In describing the system used in the experimental development, we quote from Mr. Turner's article as follows: "In order to accommodate the different sizes of packages and odd-shaped shipments like tires, a collapsible container has been developed in which the four sides and the top all lock together on the pallet to form a fairly rigid container which will support one or two more pallet loads above it, and yet which can be knocked down to a 4 by 4 ft. size, 12 in. high. Obviously, ownership of the pallet-container and its return empty, if that be necessary, constitute a real problem. So for this experimental operation, the pallet-container movement of l.c.l. shipments is being confined to a routing of stations where it can be closely supervised, such as between Chicago and Evansville, Ind. Arrangements are being made to interchange with the L. & N. Railroad to extend this movement of l.c.l. freight in containers to various points on that system. Up to the present time, however, this has not been done and the pallet-containers have operated exclusively over the C. & E. I. system.

"In receiving l.c.l. freight from the shipper's truck it is loaded directly into a container having

(Continued on Page 72)

After the cars are loaded, containers are fastened into place with gates held in position with steel strapping.

A container type pallet solves the problem of handling odd-shaped objects like tires which cannot be handled on a flat pallet.



THE *Cost Reduction* SHOW

For cost-conscious, improvement minded executives! See at first hand the new machines and methods that are working daily miracles of cost reduction in factories, warehouses, stores. Over 200 leading manufacturers will present the latest materials handling developments—in one place, at one time—for you to inspect, compare, buy!

3rd National **MATERIALS HANDLING EXPOSITION**

Hear the country's top authorities describe newest refinements in materials handling equipment and techniques at technical sessions concurrent with the show.

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MHI Discusses National Program

Topics stressed at Cleveland meeting include expansion of Chapter Program and need for more standardization in materials handling.

THE need for a clearly defined program to further the interests of both the users and producers of materials handling equipment and the means for its attainment were major topics of discussion at the Cleveland meeting of the Material Handling Institute held Oct. 26. The importance of the rapidly expanding Chapter Program in promoting nationally the use of modern materials handling equipment and techniques was stressed by J. W. Wunsch, of the Silent Hoist & Crane Co., and chairman of the Institute's Chapter Committee. In recognition of the need for autonomy by local chapters. It was suggested that the governing body of three appointed by the Chapter Representatives of the Advisory Board be elected to the Board of Directors of the Institute in order to give the chapters more of a voice in determining the overall activities of the Institute. A program for

the training of materials handling personnel was advocated by R. Kennedy Hanson, MHI secretary-treasurer. Such a program, Mr. Hanson stated, should include all groups in the industry and should be formulated with a view to advancing the best interests of the industry as a whole.

Other topics discussed at the meeting included the need for more standardization of fundamental elements in the materials handling field. In discussing the progress now being made in the organization of a gas truck product section, J. H. W. Conklin, of the Clark Tractor Division, Clark Equipment Co., stated that a standardization project, affecting gas power truck design, is contemplated. It is expected, Mr. Conklin stated, that this program would parallel the work of the standardization committee of the A.S.M.E., but would be confined to gas trucks and would include, among other

things, safety and control methods.

Samuel W. Gibb, of the Yale & Towne Mfg. Co., and MHI president, in discussing the 1949 Materials Handling Exposition, stated that to date more than 103,000 sq. ft. of display space had been allocated to 217 exhibitors. The annual meeting of the Institute's Board of Directors is to be held at the Warwick Hotel in Philadelphia on the morning of January 13. The regular MHI Membership meeting will also be held in Philadelphia on the morning of the following day, Jan. 14.

Unusual and interesting features of the meeting were addresses by George D. Gaw, Director of the Color Research Institute of America and by Serge Birn, Consulting Management Engineer. Mr. Gaw spoke on the use of color in industry and Mr. Birn on economic conditions in Europe.



Caster, Floor Truck Meeting

The Caster and Floor Truck Manufacturers Assn., now numbering 43 member firms prominent in the manufacture of floor trucks and casters, held its annual meeting in Cleveland, October 27. Topics discussed at the meeting included consideration of the desirability of adopting standards to govern general specifications for floor truck and caster manufacture. The meeting disclosed that the association is cooperating with the U. S. Government Federal Specifications Board in setting up caster and industrial truck specifications through its Technical Committee on Materials Handling Equipment. At the meeting four additional manufacturers were accepted into membership.

Newly-elected officers are: President, A. B. Morris, Nutting Truck and Caster Co. shown above, right; vice president, C. Carter Bond, Bond Foundry and Machine Co. (at left); treasurer, A. B. Anderson, Nagle Chase Mfg. Co.; secretary, H. P. Nolan, of the association's Chicago office. The board of directors is comprised of the following: W. G. Roycroft, The Bassick Co.; L. C. Conner, Orangeville Mfg. Co.; K. P. Norton, Crane, Kilbourne and Jacobs Co.; J. N. Robins, American Pulley Co.; C. Carter Bond, Bond Foundry and Machine Co., and J. Stefan, Jr., Electric Wheel Co.



Putting final touches on the program for the Conference on Materials Handling, which will be held at Convention Hall, Philadelphia, Jan. 10-14, inclusive, concurrently with the Materials Handling Show, are (l. to r.) Carl Heyel of Lehn & Fink, Inc., New York, secretary of the main Conference committee; Curtis H. Barker, Jr., Pallet Sales Corp., New York, chairman of the committee; Bernard Lester, a Materials Handling consultant of New York, and Charles Kells, executive secretary, Electric Industrial Truck Association, Pittsburgh.

The Conference is being arranged by the materials handling and management divisions of the American Society of Mechanical Engineers, co-sponsors of the exposition with the Material Handling Institute. No charge will be made for registration and the same badge will admit to the Conference, the Show and the Materials Handling Theatre.

Shipping Documents

THE MANIFEST

The manifest is a "deposit slip" for goods deposited in a public warehouse. Even more, it supplies vital shipping information and, when accurate and complete, facilitates the distribution process.

IN LAYMEN'S terms a manifest would be described simply as a detailed itemized list of various articles contained in a shipment moving via rail, truck, water or air. The purpose of the manifest is to give the consignee information as to quantities of each item; special code markings; trade names; order number; description of product with corresponding weights; and any other information that might be helpful. For example, there might be designations for special handling such as red or yellow markings, warning of dangerous cargo, or an indication of the number of cubic feet in the package.

This is an important document to the consignee because without it the entire shipment might become a scrambled puzzle. The carrier's freight bill may only list so many packages of a particular commodity, having a given total gross weight. Lack of complete information upon arrival of shipments may result in:

1. Lost time in unloading because of extra time needed to sort and handle, or because additional precau-

tions must be taken in examining labels in detail.

2. Less efficient planning and storage of articles because no estimate can be made of space required for each particular lot of goods.
3. Less chance of detecting a discrepancy if goods actually shipped do not correspond with shipper's records. The total number of packages in a shipment may be correct, but the number of each assortment could be incorrect. This might cause overages or shortages in warehouseman's inventory that could show up later without there being any possibility of tracing the reason.
4. Hindrance to settlement of claims against carriers for shortages, particularly on pool or stop-off cars or trucks.

Since commodities may be classified under one name on the bill of lading or freight bill to secure proper freight classification, but be ordered out of warehouse stock by another trade name, manifests

and orders should be prepared in the same manner as goods are packed and marked, otherwise errors are likely to occur. Orders showing quantities, description and weight of articles sent to each consignee, should be included along with the manifest, if part or all is for immediate distribution. Totals of all cases of a particular brand on all orders should agree with the totals shown on the manifest.

In preparing a manifest, the shipper should list quantities in a shipment by number of packages, these consisting of so many pieces per package, rather than showing the total number of pieces in all packages in the shipment—i. e.: 25 cartons (6 1-gal. cans) rather than 150 1-gal. cans.

On shipments made by truck, it is recommended that the manifest be attached to the carrier's copy of the bill of lading, so that it will be available when the truck arrives at the warehouse, as often-times if the manifest is mailed it does not reach the warehouse prior to the time the shipment arrives.

From the Service Bulletin of the Greeley-General Warehouse Co., Cleveland, Ohio.



HANDLING IRREGULAR OBJECTS

The efficient handling of bulky, heterogeneous material is often a serious problem. Ingenuous modification of standard equipment or the use of specialized accessories is the answer . . .

By THEODORE WHITMAN Associate Editor

INGENIOUS adaption is the hallmark of successful materials handling. This is true for handling jobs which pose special problems to the producer of materials handling equipment. But it is even more true for those jobs which don't precisely fit into the customary mold, and can't be anticipated. It is here that some change in standard or auxiliary equipment is necessary to enable the equipment and its operator to work efficiently. These adaptations represent parts which are easily attached to the basic fork truck or hoist, and by modification or addition to fit the equipment precisely to the task.

The term "irregular objects" is indicative of the problems faced by manufacturers who either produce many items of odd size which won't behave themselves on a pallet, which are not subject to unit load treatment because of certain distribution problems, or which are so bulky and unwieldy and tender to casual handling that the use of forks on lift trucks or a boom with cable for looping around the product is "out". On the other hand, this does not disqualify the use of a lift truck or overhead rail; it is the attachment or part in direct contact with the product which is generally at fault. In these cases, imagination and patience are necessary before the right answer

comes along. Even more, a high degree of cooperation is needed between the manufacturer of the original equipment and the user.

Problems of adaptation are particularly frequent where bulky items are involved. Figure 4 illustrates an interesting use of a hoist in shipping operations. The hoist is mounted on a third story I-beam extending out over the plant yard, and eliminates handling the large awkward load within the building confines. The hoist picks up rugs inside the plant, carries them through an open door, and lowers them to street trucks three floors below. A long electric control cable permits raising and lowering by push button control when the hoist is at the far end of the beam. The yoke-like pickup device further facilitates handling by preventing rugs from buckling in the middle and from slipping out of the sling. The attachment has five hooks to which slings are attached, hooks are spaced for handling rugs of different sizes. As illustrated, the slings are adjusted for maximum length rugs and are lowering two broadlooms to a waiting street truck.

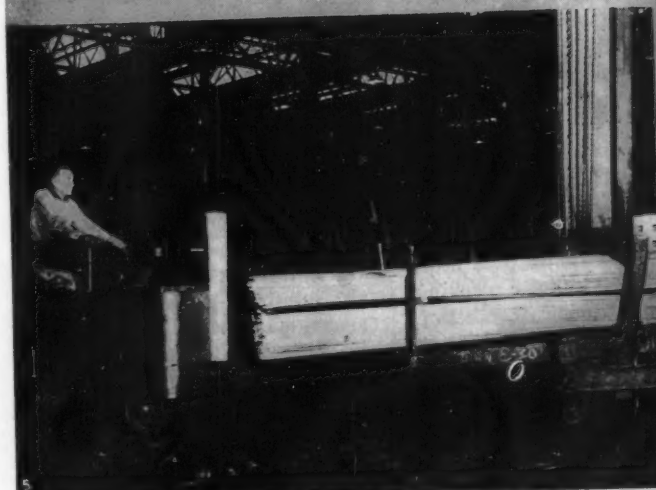
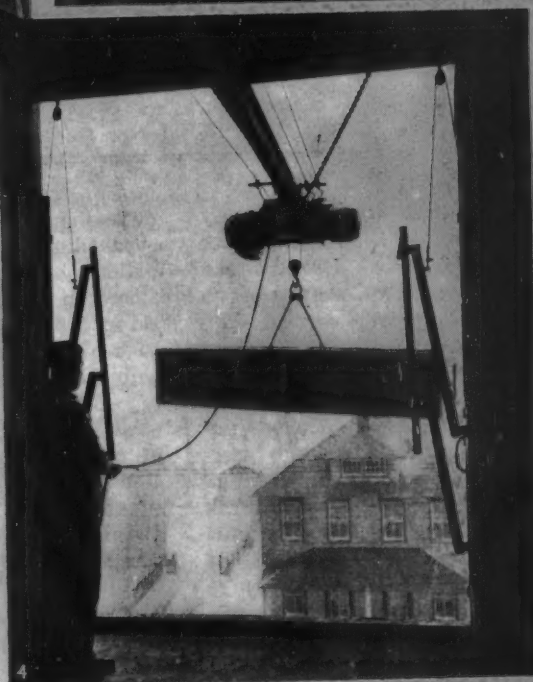
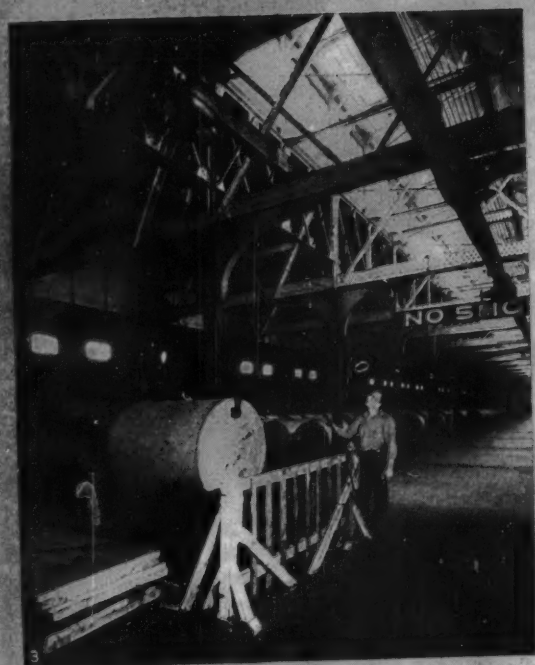
Another example is found in Figure 2, which illustrates a two-ton electric hoist lowering rolls of paper from a second story warehouse to street trucks below, thus eliminating transportation to,

from, and in elevators. Two right angle castings are threaded onto a wire cable-loop which is attached to the hoist hook. The angles are fitted over the edges of each end of the roll as shown and the tension which results when the "up" hoist control is pushed, holds the angles tight against the paper and permits the roll to be moved up and down the length of the I-beam on which the trolley-hoist is mounted.

In both cases, the basic equipment was standard; in both cases the attachments were designed to simplify and facilitate firm grabbing without injury to the product. The "grab principle" is not the only solution to the handling of large, unwieldy items. One large papermaking company finds that, in the movement of paper rolls weighing about two tons, a fixed platform industrial truck does the work with dispatch. Two simple chucks on either side keep the paper from rolling off.

Light work involving a bulky container where the small units involved must be readily separated but for special reasons have to be handled for a time as a unit load are shown in Figure 2. This illustrates the use of a roll-away jack and a specially designed semi-live skid rack in routing cleaned clothing back to customers through-

(Continued on Page 60)



GOOD PACKING PAYS OFF

(Continued from Page 31)

About the Author

A. L. Russell, Assistant Traffic Manager, Sears, Roebuck & Company, Los Angeles, has been a member of the Sears organization since 1942 when he entered the traffic department as a rate clerk. Before his employment by Sears, he spent twenty years in various jobs in the transportation industry, ranging from truck driving to traffic manager of one of the large mid-western motor freight carriers.

Russell has been a leader on the Pacific coast in the campaign for better packing and shipping, contributing time and effort to the furthering of educational programs such as the Packaging Exposition held in Los Angeles last year, sponsored by the Motor Truck Association of Southern California.



types of movement. Shipment by rail can move either in carloads or in less carloads. Less carload shipments, however, are subject to more handling than carload shipments and, as a result, must have greater protection. Shipments are usually picked up by motor trucks, taken to carrier's depots, unloaded, and reloaded into merchandise cars. These cars are then shipped to destinations or break bulk points where the shipments are reloaded into other cars, or into trucks for final delivery to the consignees. At some points, delivery is effected by trap cars. Each piece, we can see, is handled at least six times.

Truck shipments are similar except that often the carrier will elect to load the merchandise directly into the vehicle which will perform the road haul service.

Express and parcel post involve many handlings. A typical route is from delivery truck to post office dock, to sorting tables, to hand truck, to the post office car on the train, to the pick-up truck, to the destination post office, to the delivery truck.

The handling of merchandise in the warehouse, after the initial transportation, must be given careful consideration. The manner of storage, whether on pallets, skids, shelves, or even in open stock on the floor, has a definite bearing on the amount and the quality of the

packaging to be placed around the commodity. An article loaded on pallets, handled by fork trucks, stored on the same pallets, and re-shipped on these pallets is going to require less than any article shipped in individual packages and handled manually from the steamship, rail car, or other means of transportation.

Methods of distribution are an equally important factor. The man designing the "specs" on a package should ask some very important questions:

Is the item distributed from a warehouse?

Is the item shipped direct to retail stores and then delivered to customers?

Does the customer carry the item home or does the store deliver to the customer?

Is the article distributed in the original package and the same unit quantity as shipped?

A large number of factors enter into the design of packages from the transportation angle. These factors, of course, must be considered in their relationship to other factors such as interior packing, waterproofing, impact protection, appearance, and above all, the cost of the protection.

A packaging engineer must know just what is going to happen to every article for which he designs a package. He must know

what the protection is for—against marring? abrasion? soiling? fading? moisture?

To illustrate this point, let me borrow from J. L. Ware, the packing expert of Sears, Roebuck and Co., in Chicago. His problem was to pack a chest of drawers which was finished in an air dried varnish. Naturally, it was impossible to apply any pressure to the surface of the article. Waxed, glazed, or similar papers could not be used because of their tendency to mar the surface of this type of finish. A study was made of the methods of transportation, the methods of warehousing, distribution, and delivery. The result was the development of a wood reinforced fiber-board carton, with the chest suspended by anchoring it to the wood reinforcing or crate members. This could be done because the back of the chest is not finished. A follow-up study has shown that this thinking was right. Until this day, there are practically no claims on this article for damage in transportation.

We have recently seen a number of packaging men making studies of railway freight stations, steamship docks, truck and airlines. I am certain those engineers are going to be able to design packages that far excel those designed by men who have never seen a freight dock and who do not know what happens to freight in the hands of the carrier. Evidence is offered every day pointing to the wisdom of knowing how freight is handled.

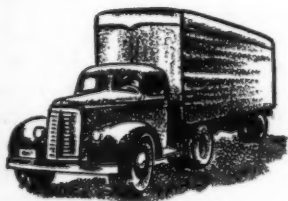
In Los Angeles, a manufacturer, using his own truck, was delivering to one of the larger chain stores coffee tables wrapped individually in double layers of kraft paper and mounted on pieces of lath for skids. He also sold such tables to customers throughout five western states, shipping them by rail and truck over distances up to six hundred miles. The distant customers complained that the tables were damaged when received. The manufacturer was notified and a correction was requested. He replied that the pack-

(Continued on Page 76)

Chicago Trade Zone Opposed

J. Leo Cooke, president of the AWA, speaking at the recent American Merchant Marine Conference, characterized the foreign trade zones act of 1934 as a noble experiment that had accomplished nothing and had resulted in discrimination since "the act does not lend itself to the establishment of zones except in certain parts of the U. S." Mr. Cooke, one of the speakers opposing the establishment of a foreign trade zone in Chicago, outlined a plan to make every customs bonded warehouse in the country an f.t.z. under specific conditions to be covered by amendment of the act. Such warehouses now being maintained as an integral part of the foreign trade community should be given the same benefits and privileges as are offered seaboard zones, he maintained. William C. Crosby of Fidelity Warehouse Co., concurred in demanding changes.

W. W. Huggett, president of the North Pier Terminal Co., stated that there was no reason for an f.t.z. at an interior point such as Chicago. "There is no justification," Mr. Huggett stated, "for a trade zone in Chicago, since it is not a coastal area and it is unlikely that commodities would be brought for storage or processing and resold to foreign customers."



Warehouses and Packaging

The final day of the three-day session of the 10th Annual Forum of the Packaging Institute, Inc., was marked by a forthright discussion by Harlan J. Nissen on "What a Warehouse Operator Thinks of Packages." Mr. Nissen, who is general president of the American Warehousemen's Assn., pointed out that "Packaging in relation to distribution costs is an angle of prime consideration . . . the cost of handling packaged goods through a warehouse is naturally a part of the distribution costs, and especially when warehousing is recognized as an integral part of the functions necessary to move goods from the producing point to the ultimate consumer. It is only natural that we should be concerned because our responsibility as modern warehouse operators is to help each and everyone of you cut down on the ultimate costs of every single consumer package."

Mr. Nissen constantly stressed the cost factor in both packaging and warehousing. In addition, he remarked on the extreme need nowadays for the close integration of such correlated industries as packaging and warehousing and the necessity of their working together closely on the practical level. Mr. Nissen is a member of the Executive Committee of the National Assn. of Refrigerated Warehouses and of The Refrigerated Research Foundation.

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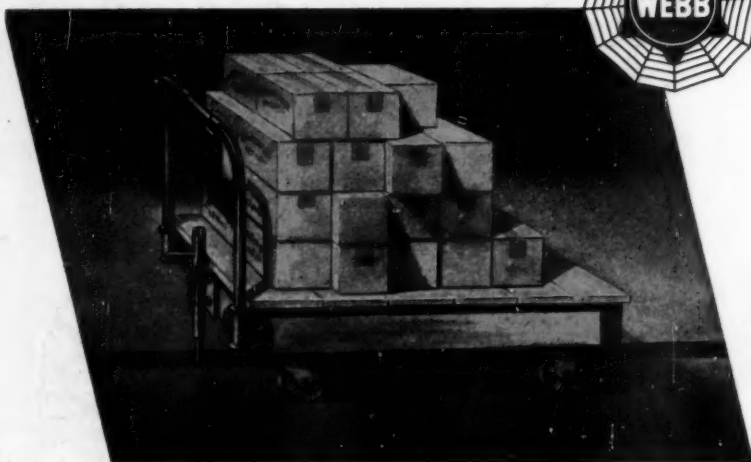
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PORTS

(Continued from Page 35)

planned for the harbor will result in the development of the large west basin area. Negotiations for the removal of the Southern Pacific drawbridge across the entrance channel to the west basin are now under way. The Harbor Department this year set aside 3.3 million dollars for the west basin development which will include building a marine passenger and freight facility just north of Berth 145. Extensive repair work has been completed in the harbor area in the last two years. Untreated deck structures have been repaired and considerable replacement of fender piling has been made in wharves.

Last month, the Los Angeles Harbor Department forwarded to the Department of Commerce an application to establish a Foreign Trade Zone. It is expected that a hearing on the application will be held within 45 days and that in six months the zone will be in operation. Site of the Foreign Trade Zone is the Harbor Department's Warehouse No. 1 situated on municipal pier No. 1 at Berth 60. It is planned to use rooms on the first floor of the concrete six-story structure, which has a total floor area of 477,550 square ft. The proposed plan for the zone would enclose Berth 60 and the four low-line railroad tracks east of the transit shed, the roadway south of warehouse No. 1, and the land area and former Navy building east of the warehouse.

Berth 60 can handle more than 100 thousand tons of cargo a year. Probably a major portion of goods to and from the zone will be handled by bonded truck or railroad cars from or to other berths in the harbor.

Los Angeles Harbor is today at the dawn of a new era. The Far East will be the source of supply for raw materials. Likewise it is a major territory for the sale of manufactured products. The Port of Los Angeles will keep in step with the development of the Pacific area.

SHIPPERS COUNT

(Continued from Page 27)

non-receipt of goods, provided the shipments have been made in compliance with this section of the Bills of Lading Act. In order that the carriers may be held: 1. the shipments must be of bulk freight; 2. the shipper must provide and maintain adequate weighing facilities; 3. there must be a written request made by the shipper addressed to the carrier to ascertain the kind and quantity of the goods; 4. the shipper must give the carrier a reasonable time after the notice has been given to inspect and weigh the freight.

In *Boatmen's National Bank of St. Louis v. St. L.-S. W. R. Co.* the Circuit Court of Appeals for the Eighth Circuit held that a carrier who issues a bill of lading marked "shipper's load and count" is liable for whatever the carrier has actually received from the shipper.⁵ This case involved the liability of the carrier for the goods in carload shipments of rice which had been loaded originally at Jonesboro and DeWitt, Ark., and had moved under local straight bills of lading from the points of origin to Stuttgart, Ark. Here the cars were unloaded at an industrial plant track and reloaded. The reloaded cars were shipped on exchange or reconsignment order or negotiable bills of lading. The bills of lading were endorsed by the agent of the carrier at Stuttgart "shipper's load and count." The shipments originally consisted of a certain number of pockets of clean rice, but at the rice mill, the clean rice was unloaded and the cars were reloaded with rice screenings worth only a small fraction of the value of the clean rice.

The Circuit Court of Appeals observed that reconsignment bills of lading could only be issued for shipments which had not broken bulk, so that the notation "shipper's load and count" could be regarded as referring only to the load and count of the shipper

⁵ 75 Fed (2nd) 494, 1935; certiorari denied in memorandum opinion of the United States Supreme Court in (295 U.S. 751), 1935.

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at the point of origin, because there could be no reloading or re-counting at Stuttgart if the cars were reconsigned from that point. It held that it was clearly the duty of the carrier to see that no reconsignment bills were issued except in accordance with tariff regulations.

The Circuit Court cited *Chicago and Northwestern R. Co. v. Bewsher*, (6 Fed (2nd) 947), 1925; *C. and N. W. R. Co. v. Stephens National Bank of Fremont*, (75 Fed (2nd) 398), 1935; *Dwinnel et al v. D.S.S. and A., R. Co.* (242 Mich. 357), (218 N.W. 649), 1928, as supporting its position that the carrier issuing a bill of lading although marked "shipper's load and count" is liable for "whatever the carrier actually receives from the carrier."

In *Brewster v. New York Central R. Co.* a New York court affirmed a judgment of a county court which held that the plaintiff, the owner of the shipment, was entitled to judgment in an action for damages for the breaking of a piece of plate glass alleged to have been caused by the negligence of the defendant carrier shipped from New York to Schenectady. The shipment in this case was covered by a straight bill of lading issued by the carrier, which contained a condition that the carrier would not be liable for damage by breakage or from any cause if it should be necessary or was usual to carry the shipment in open cars. The words: "Loaded and secured by the shipper, released" were written by the carrier's employe. Testimony was adduced that the piece of glass, 10 ft. by 9 ft. by $\frac{3}{8}$ in., was packed and boxed by the shipper. It was carted by a cartman employed by the shipper to the railroad's receiving station where it was received and receipted for in good condition with the knowledge that the box contained plate glass. The box was secured on the freight car and the box was not broken. At destination the consignee's cartman, without examining the contents of the box, signed a receipt for it in good condition. The cartman unloaded the box from the car, and loaded it on a vehicle designed and used for the trans-

portation of glass. It was transported over paved streets to the place where it was to be used. The truckman was experienced in performing this type of hauling and did the work carefully. When the box was first unpacked, the glass was found to be broken into many pieces.⁶

The court held that although the burden of proving negligence undoubtedly rested upon the plaintiff, it was not incumbent upon him to point out the precise act or omission in which the negligence consisted, and that proof of the nature of an accident may afford *prima facie* proof of negligence. It held that cases may occur where the proof of loss and circumstances connected with it may show a case of presumptive negligence in the defendant such as will entitle the plaintiff to recover upon that ground, in the absence of further proof. It cited an earlier New York Case, *Russell Mfg. Co. v. N. H. S. Co.*, in which the court stated: "Where the accident is one, which in the ordinary course of events would not have happened, but for the want of proper care on the part of the defendant, it is incumbent upon him to show that he has taken such precautions as prudence would dictate; and his failure to furnish the proof, where, if it existed, it would be within his power, may subject him to the inference that such precautions were omitted."⁷

The defendant carrier in the *Brewster Case* presented no proof of care and offered no explanation. The court held that the evidence disclosed a *prima facie* case of negligence, which, in the absence of proof of care, sustained a finding of negligence.

It held also that general words in a contract of carriage, such as a bill of lading, are not sufficient to release a carrier from the consequences of its negligence. If such a result is intended, it must be expressly provided for in the contract.

In *Lewis Poultry Company v. N. Y. C. R. Company* the Supreme

Judicial Court of Maine granted a motion for a new trial in a case where the court below in a jury trial had granted a verdict for the plaintiff for loss alleged to have been suffered on the ground that the jury had misapprehended the evidence and had drawn inference so erroneous as to make it the clear duty of the court to set the verdict aside.

In weighing the conflicting evidence to determine which was the more accurate, the Supreme Court decided that the evidence of the defendant carrier outweighed that of the shipper. It found that the count of the shipper, made at intervals of time in the course of two or three days when the shipments were loaded into the car after he had purchased them in small lots from dealers, was less reliable than that of the defendant carrier.

The Court stated, "the decision of the jury counts for much. It is not to be lightly annulled. But weighing the evidence in cold calculating unimpassioned manner, it is our conclusion that the jury misapprehended the evidence, and from it drew inferences so erroneous as to make it the clear duty of the Court to set the verdict aside." The motion of the defendant carrier for a new trial was sustained.⁸

Order Notify or Negotiable Bills of Lading

In a case sometimes cited, the present writer believes erroneously, as authority for the position that a railroad carrier is not liable for loss or shortage in connection with a shipment covered by bill of lading containing the notation "shipper's load and count," the question was not primarily the significance of the notation but the effect of such notation upon the purchaser of an order notify bill of lading.⁹ In this case an order notify (negotiable) bill of lading was issued by the initial carrier to cover a shipment stated in the bill of lading

⁶ Supreme Judicial Court of Maine. (105 ATL. 109). 1918.

⁷ *Brewster vs. N. Y. C. and H. R. R. Co.* (129 N.Y.S. 368), 1911.

⁸ (50 N. Y. 121), 1872.

⁹ *People's Savings Bank of Saginaw v. Pere Marquette RR Co.*, (235 Mich. 399), (209 N.W. 182), 1926.

to contain 360 sacks of beans. The bill of lading contained the initials "SLC" indicating shipper's load and count placed upon it by the manager of elevator company which shipped the car. The purchaser of the bill of lading knew that the initials indicated that the shipper had loaded and counted the shipment.

The manager of the elevator loaded the car, knowing that it contained only 16 sacks of beans although he had executed the bill of lading stating that the car contained 360 sacks. The same person prepared a draft for \$1,440 drawn on a merchant, Nelson Sheppard Co. at Columbus, Ohio, payable upon arrival of the car at Saginaw, Mich. He endorsed the bill of lading and sold it to the purchaser. The actions of the representative of the shipper were patently fraudulent. The court held that the purchaser of the bill of lading, which had been sold by the shipper, the Alma Elevator Co., to the People's Savings Bank of Saginaw for \$1,440, could not

be an innocent purchaser because it had notice of the following facts: 1. that the representative of the shipper loaded the car; 2. that its contents were unknown to the carrier; 3. that the weight was subject to correction; 4. that there was no representation on the part of the railroad carrier as to the quantity of the beans in the car.

This case appears to this writer to turn on the fraud of the shipper and upon the status of the buyer of the negotiable bill of lading as one not an innocent purchaser for value, rather than upon the validity of the restriction of the words "shipper's load and count" as a device to limit the liability of the carrier issuing the bill of lading.

Conclusion

The conclusion seems warranted that the words "shipper's load and count" or words of like import, upon a carrier's bill of lading issued to cover an interstate shipment is not a complete bar to recovery for the loss of goods covered by the bill if the shipper or owner can prove what actually was

in the car. There can be little doubt that the liability of the carrier for the full actual loss can be enforced provided the shipper notifies the carrier in writing that it wishes the shipment inspected and weighed, provides reasonable facilities to enable the carriers to do so, and affords a reasonable time for the carriers to accomplish these functions.

A similar conclusion appears to be warranted with respect to car-load shipments which move under clear seal records, if the plaintiff can prove that there was loss, and that the loss claimed could not have been due to natural causes such as evaporation or shrinkage, or other causes for which carriers are not liable.

In order to clarify these problems, however, decisions by a high court squarely on the issues appears to be needed for the guidance of shippers and carriers.



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57

PICK-UP AND DELIVERY

(Continued from Page 32)

tariff published and filed with the Commission to which a number of railroads are parties to pick-up and store-door delivery rules. Here it is: "In instances where consignors and/or consignees have side track facilities, the carrier may use freight cars, but where freight cars are used, loading and/or unloading of cars at shippers or consignees place of business shall be performed by the shipper or consignee." On the basis of that rule you will note that a rail carrier may make deliveries of l.c.l. freight in ferry cars even though the consignee prefers store-door delivery service by truck. The reverse applies on outbound shipments."

"Now take a situation where a railroad is furnishing store-door delivery by truck in line with a consignee's request," Burt challenged. "Suppose the consignee for some reason or other fails to accept a shipment. In such a case, will the rail carrier attempt a second delivery of the same consignment?"

"In the agency tariff which I just mentioned," McCormack responded, "there is a rule which reads as follows: 'If a shipment is once tendered for delivery, and through no fault of the carrier such delivery cannot be accomplished, no further effort will be made to effect such delivery, except on request, and at an additional charge . . .'"

"In furnishing pick-up and delivery service, Jack, do the railroads place any restrictions as to the handling of certain types of articles?"

Interfloor Conveyor

A new low-cost escalator-type conveyor called the Floor-Veyor Jr. which can handle a variety of products and has adjustable pitch is now available. Made by the Rapids-Standard Co., Inc., Grand Rapids, Mich., the 16 in. belt model can move a distributed load of 525 lb. at 54 ft. per minute with a 3/4 h.p. motor at a 25 deg. pitch. The equipment can also be used at the horizontal, with slight modification, and appears as the "S" model. Its principal advantages are its low cost and flexibility.

"Certainly," replied McCormack. "Their exceptions apply to a number of things such as automobiles, household goods, empty containers, explosives and other dangerous products, articles of unusual length or size and many others. One railroad may refuse to handle rags in bales, whereas another may accept such shipments. It's necessary to refer to the carriers' tariff for a complete list."

"Have the railroads always provided the pick-up and delivery service?" questioned Burt.

"Far from it," said McCormack. "It was not until 1931 that the Southern rail carriers offered the service. Western railroads established pick-up and delivery in Chicago switching district, about Jan. 20, 1936.²² Prior to 1932, except in isolated instances, rail carriers did not render pick-up and delivery service.²³ Before that, the railroads did furnish a somewhat limited service at two points, Baltimore, and Washington, D. C. The service was eliminated at both places in 1913 because of rulings of discrimination."

"Do the railroads operate their own trucks or use outside truckers for the service?" Burt inquired.

"Usually," McCormack stated, "the railroads prefer to employ contract truckers.²⁴ To a certain extent, the truck and rail service can be coordinated to ensure expedited transportation on fast trains."

"Are the operations of the regular highway carriers more flexible than the combined rail truck pick-up and delivery service?" Burt asked.

"It all depends on given circumstances," said McCormack. "Pick-up and delivery by trucks is often from store-door to store-door, in the same equipment, without terminal handling.²⁵ The truck employed by a railroad must pick-up the shipment at origin, handle it to rail terminal, across the freight platform and into rail

equipment, then unload from cars and handle through rail terminals at destination, and deliver by truck to consignee. Frequently, though, highway motor lines must incur the expense of picking up freight and carrying it to an assembly point for concentration into truckload."²⁶

"Is a certificate required for railroad pick-up and delivery service trucking?" asked Burt.

"I'll answer by quoting from a court case," McCormack replied. "In 16 Fed. Supp. 908, the court declared: 'Injunction to restrain the Commission's order permitting railroads to file schedule for pick-up and delivery was denied to a truckman's membership corporation. A certificate is not necessary for such railroad operation; and it may well be doubted whether any party other than the Commission may complain.'"

"In that case," inquired Burt, "which part of the Interstate Commerce Act governs?"

"It's this way," McCormack answered. "The service in which the truck operator operates under collection and delivery for a railroad, the operation being independent except that the railroad can be held liable for loss and damage, is part and parcel of railroad common-carrier service subject to Part I of the Act."²⁷

Explanation of of Reference Marks

Numbered symbols used in this article refer to citations from court cases or I. C. C. decisions as indicated.

* C. W. Boin tariff 102-G, I. C. C. A-829

¹ See 34 I. C. C. 516

² See 218 I. C. C. 441

³ See 218 I. C. C. 441

⁴ See 24 M. C. C. 501

⁵ See 34 I. C. C. 516

⁶ See 34 I. C. C. 516

⁷ See 50 I. C. C. 555

⁸ See 197 I. C. C. 675

⁹ See 218 I. C. C. 441

¹⁰ See 156 I. C. C. 205

¹¹ See 157 I. C. C. 277

¹² See 30 I. C. C. 388

¹³ See 140 I. C. C. 129

¹⁴ See 140 I. C. C. 627

¹⁵ See 155 I. C. C. 129

¹⁶ See 248 I. C. C. 385

¹⁷ See 219 I. C. C. 245

¹⁸ See 10 Fed. Supp. 358

¹⁹ See 258 I. C. C. 697

²⁰ See 218 I. C. C. 441

²¹ See 218 I. C. C. 441

²² See 1 M. C. C. 673

²³ See 258 I. C. C. 697

²⁴ See 248 I. C. C. 385

²⁵ See 245 I. C. C. 545

²⁶ See 243 I. C. C. 411

²⁷ See 4 M. C. C. 551

PUNCH CARDS

(Continued from Page 21)

procedure by which high-speed, automatic machines convert holes in digit-covered cards into an amazing variety of reports and statements—is finding increasing favor in a variety of distribution operations. But nowhere, perhaps, is it being more extensively studied—and adopted—than in wine and liquor wholesaling. From a control and figure fact finding standpoint it “gets there fustest with the mostest.”

There is much distribution operation in which the punched-card procedure (sometimes known as machine tabulating) has been performing what its management terms daily miracles. The business machine operations of providing a tremendous range of sales analysis and control information at breath-taking speeds—and more economically than by former manual-mechanical means—are at wine and liquor distribution depots throughout the country. The “daily miracle” term is used by an executive of the Federal Wine and Liquor

Co., of Jersey City, N. J., which has been operating under the punched-card procedure for something over two years.

Federal's general manager, Norman S. Feldman, nationally recognized in his industry for leadership in the advocating of faster, better accounting, inventory and sales statistics controls, rates sales analysis results through tabulating as tops in their operations—with inventory control and actual physical distribution aids as close seconds. He is chairman of the Office Systems Clinic of the Wine and Spirits Wholesalers of America.

Here's the way he sums up the sales analysis statistics compilation picture:

“Tabulating gives us the exact movement on every item in the line, not just on the top sellers or a few general groupings; we get complete detail on every salesman's activity, not just impressive, but often misleading, totals. And we have at all times the full pic-

ture on customer activity, individual brand, vintage and unit size movement, as well as the current picture on returns, methods of ordering—whether by salesman's call, telephone or mail—breakage losses and credits.”

Actually, the production of sales analysis detail by the punched-card procedure is a by-product of a by-product of tabulating. The cards are punched first for inventory control, invoicing and general accounting procedures. Tax reports, purchase analyses statements and reports to the state Alcoholic Beverage Commission are prepared from the punched-cards, and while one or another of these by-products are in the works, automatic processes take place to set up the sales analysis material.

Contrasting the punched-card procedures with manual or semi-manual operations, as it applies particularly to sales analysis, Feldman has this to offer: “There's no question but that even by largely manual methods you can get detailed summaries and other reports for sales analysis purposes, but the

(Continued on Page 74)



We wish you
a Merry Christmas —
and pleasant mileage
in 1949

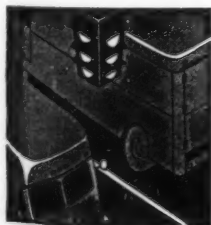
That your holiday season may overflow with the joy and good fellowship of Christmas time is a sincere wish of The Gerstenslager Company.

“Pleasant mileage in 1949” goes right along with our Christmas wish—and if you happen to be planning the purchase of a new van or truck body a Gerstenslager Custom-built Body can help to make that wish come true.

THE GERSTENSLAGER COMPANY

Wooster, Ohio

Established 1860



GERSTENSLAGER

custom-built

Van Bodies

IRREGULAR OBJECTS

(Continued from Page 50)

out the city. As clothing is bundled, it is placed in the rack according to the part of the city for which it is destined. The racks are then pulled to the shipping platform where they are lined up in temporary storage, prior to being loaded onto street trucks for delivery.

Racks are supported by two wheels at one end, and by two skid legs at the other. This arrangement keeps the rack from rolling about during loading and when in temporary storage. At the same time, it permits easy transportation by means of the roll-away jack. The jack fits under the skid legs, lifts the rack off the floor, and supplies a third wheel for hauling. The boards on the loading side of the wooden rack are removeable to facilitate loading and unloading operations. A piece of pipe, secured to the top of one side of each rack projects outward about 18 inches and is used for hanging coats and frocks. The method provides a neat, time-conserving, and efficient pre-delivery handling system.

The emphasis here is on temporary storage of small items and the principle involved is one of pick-up and haul. The skid rack combines the virtues of being easily movable and is also capable of fixed storage. In contrast is the more customary pick-up and carry equipment represented by the lift truck. In figure 6, a heavy-duty truck is depositing a ten-ton roll of strip steel on a stand. This ram truck is an adaptation which permits heavy moving work without use of special grab arms or bottom supports; instead, a "ram" is inserted through the roll, the load quickly balances and is then moved to destination and deposited.

Adaptation may take the form solely of devising a new type of container which would be used with standard materials handling equipment. Figure 5 shows a movable platform for lengthy non-ferrous rods. Since the rods are easily bent unless supported for almost their full length, a sturdy platform was devised. Heavy wire

rope reels are handled in much the same way. The principle used is that of rolling, because of the weight involved and the inability, due to special production problems, to use overhead conveyors.

Yale and Towne devised a successful and imaginative method for handling steel. Figure 6 illustrates the use of a special grasp attachment for warehousing large quantities of sheet steel. The rig moves bundled sheets through the air instead of across the floor, and reduces aisle space to a minimum. The I-beam on which the hoist rides is recessed to ride between structural beams, rather than being hung from them, thus adding head room to the storage zone. Special bowed-out pickup elements facilitate handling bundles of various widths; blocks strapped beneath each bundle separate them and make it easy for the grab to pick them up. The electric trolley hoist has a capacity of one and one-half tons. The so-called pick-ups are essentially modifications of the pallet, and so designed as to save space. It is interesting to note that the pick-up element is an integral part of the load, and that the design of the rig permits a considerable range in the thickness of the load. The principle involved is the unitized pallet load, on overhead carriage.

These examples are but a few which typify many cases of handling equipment adapted to hand-

National Packaging Exposition

The American Management Assn. will hold its 18th annual exposition on May 10-13 at Atlantic City, N. J. This event, expected to be the largest so far, will be concurrent with an AMA conference on packaging, packing and shipping. Several hundred packaging executives, engineers and technical experts will be on hand to discuss materials, methods, procedures and merchandising from the management point of view.

L. A. Appley, AMA president, added that the Exposition Exhibitors Advisory Committee, headed by J. M. Cowan of the Dobeckmun Co., will handle arrangements for the exposition.

ling "odd-shaped" products. That the techniques save time, physical exertion, wasted space, and money is obvious. Two specific companies where outstanding savings were made in warehousing operations are the General Tire & Rubber Co. and the Coca-Cola Bottling Co. of Honolulu. At General Tire & Rubber, work-hours were reduced 58 per cent upon installing a pallet system and savings of \$80,000 per year were effected. These savings, of course, were made after planning, receiving and warehouse operations on a plant-wide rather than single operation basis. The problem of handling odd shaped items was encountered here, notably in tiering bales of crude rubber which come in rough uneven sizes. Boards were placed atop pallet loads to provide a base for succeeding pallets.

In the Coca-Cola case, savings in excess of 50 percent were made in inter-warehouse shipping when fork trucks were installed to load and unload street trucks which carry Coca Cola from the bottling plant to a warehouse some 30 miles distant. Under the old method, it cost \$6,600 to load 300,000 cases per year; under the new system it cost \$3,480. These figures do not include savings effected by a similar unloading system. Equally great savings are expected of a new system devised for facilitating loading and unloading trucks which distribute Coca-Cola to local confectionery, drug, and concession stores.

The imaginative adaptation of standardized equipment not only serves to increase the usefulness of materials handling devices but paves the way for basically new approaches. For example, there is the lift truck which operates on rails, thus being a sort of hybrid between a rail car and lift truck. This job was devised to operate in a steel mill. This "hybrid" is in essence an overhead rail conveyor turned upside down. Whether equipment is "stood on its head" or hooked onto another piece of equipment to do a specific task, or given a set of "arms" to imitate a robot, it is all a prime example to American inventiveness and the perpetual urge to do the job better and cheaper.

Cardoplate

A new Addressograph development that will introduce to materials handling procedures an important cost-cutting, time-reducing improvement, is announced by the Addressograph-Multigraph Corporation. The unique development which is being marketed as the "Cardoplate Self Writing Record," embodies the use of a light-weight embossed metal plate which can be attached to standard accounting forms, making it possible for the first time in accounting history to add the mechanical "mass typing" features of an Addressograph plate to the conventional functions of a basic accounting record. It introduces accurate, mechanical processing of data and enables users to transcribe key information about persons, products or services instantly on any business form—directly from a posted record at point of use.

In conjunction with the Cardoplate, self-writing unit, the company is also introducing a port-

able transcribing unit, Addressograph Model 125. This machine is smaller than a typewriter and can be operated on any convenient stand, desk or table. It accommodates forms ranging from four into 8-11/16th in. wide and of unlimited length. The new transcriber has the same single stroke operation that characterizes other Addressograph-Multigraph transcription machines. In addition, it is equipped with several special design features which further simplify the Cardoplate operations. For instance, it has instantly adjustable gauges for registering top and side margins, ribbon inked on one side only to prevent ink from depositing on Cardoplate type characters and then offset to forms.

The Cardoplate capacity is four lines of .166-in. spacing, giving 25 characters at 12 per inch in each line. The plate itself is 2¾ in. long and 13/16 in. wide and holes through which the plate is attached to the records are 3/16 in. diameter giving 2½ in. of space between the centers.



A powered loading ramp that is quickly adjustable to a position above or below the loading platform has been introduced by Superior Railway Products Corp., Pittsburgh. This hydraulic device requires no special "on the job" engineering to place the driving rams in position, is constructed of safety-tread rolled steel and has a frame of standard channels designed for maximum strength and low weight. The ramps are built to handle five ton loads and take care of "off-balance" loads.

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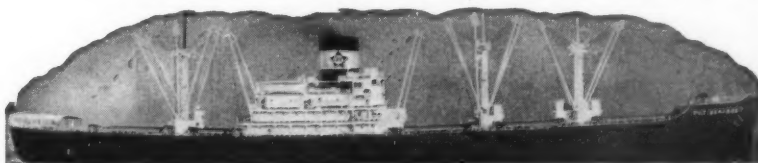
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COMMODITY CLASSIFICATION

(Continued from Page 25)

fective description can result in loss of revenue. There is always that possibility, if diligent investigation were made, that commodities were of such character and nature as to be subject to higher ratings. Failure to take reasonable and proper precautions, by assuming incompleteness or defective descriptions to be something they in reality are not, may result in applied ratings producing undercharges. Carriers are also threatened with the probability that earload and truckload mixture descriptions may be partially or wholly defective to the degree of prohibiting applicable ratings under available rules. In that event they would be deprived of the greater revenue producing less earload, or less truckload rates.

In the final analysis the carrier position would amount to this: classifying errors that unfavorably effect shippers would, in reverse situations, react unfavorably against the carriers. The Interstate Commerce Act is primarily aimed at carriers and legislates against unreasonable classifications and practices. By virtue of that mandate, carriers were left with no alternative but to police their own business, or face the consequences. One of many safeguards is the creation and maintenance of Classification Committees.

Classifications, by grouping articles according to related value and by establishing ratings corresponding therewith, are the instruments designed to reflect the degree of reasonableness required by law. They are carrier-sponsored and are issued to carrier and shipper alike. In theory, classifying functions engaged in by shippers may be construed as privileges accorded them by carriers. It implies carriers, confidence in shipper ability to convert his products intelligently and realistically to classification standards.

Transportation law incorporates a system of checks and balances whereby carriers are deprived of dictatorial powers. Adequate agencies are available to which shippers have the right of appeal to secure relief from carrier acts tending to upset equilibrium and produce hardship. While classifications and freight tariffs are as distinct and independent in source as they are in nature, they do represent counterparts in the desire and achievement for reasonable rates and classifications. With one hand free and the other slave, such objective would be defeated. The importance of legislative control over classifications cannot be stressed too greatly. Without such protection reasonableness of rates would be on a precarious foundation and meaningless to a marked degree.

Role of Materials Handling

Mr. J. W. Wunsch, chairman of the MHI's Chapter Committee, in an address at the Chapter Advisory Board meeting in Pittsburgh on Sept. 29, pointed out that the "present state of development and application of scientific material handling principles and tools are much further advanced than the knowledge and appreciation of their importance in production and transportation by industry. Our progress in the development of equipment due to the demands of our industrial war machine has probably advanced in the war period at least 20 years of normal development. . . . It is my view that the science, the expert knowledge of principles and methods is at present to a very large degree resident and

divided between a few men in the equipment manufacturing plants and a similar few engineers in industry. And we may look forward to an early realization of the day of fruition when these people get together and fully cooperate."

Mr. Wunsch also referred to a meeting of the Gas Truck Section of the MHI with the representatives of the Factory Insurance Assn. and other insurance people. The purpose was to arrive at a standardization of specifications for the use of gas-powered industrial trucks in certain hazardous locations. The meeting was highly successful and promises much in this important field.

WAREHOUSING COSTS

(Continued from Page 37)

added up to 100,000 dollars in one year, and when several new warehouses have been constructed, annual savings in excess of 250,000 dollars are expected.

We discovered an opportunity for reducing our distribution costs significantly by analyzing an important sector of our distribution process which had been in a sort of no-man's land so far as executive responsibility was concerned. This no-man's land existed because our two major operating executives weren't agreed where production ended and where distribution began. As a result, there was a divided responsibility for the physical handling, storage, movement, and control of merchandise from the time it came off our production lines until it was put into our customer's hands.

Our manufacturing executive was interested in low unit costs up to the time the finished product left the plant. Our sales executive was primarily interested in sales volume and price and selling costs. As a result, the handling and movement of merchandise, the planning and control functions, hung pretty much like a hammock, firmly held at each end, but sagging and without firm support in the middle. For example, warehouse location was a manufacturing responsibility, warehouse operation a sales responsibility, and neither manufacturing nor sales paid much attention to the handling, routing, and control of merchandise.

As a first step, therefore, we appointed a staff executive in charge of physical distribution to insure an over-all, company-wide, cost-and-profit viewpoint in dealing with the problems in this field. This provided for a concentrated and energetic attack on this hitherto neglected zone and for the performance of the necessary research on which to base sound conclusions. This new executive immediately tackled these questions:

1. Where should merchandise be stored when it comes off the production line? Should

it be stored at the production plants (of which there were six), in storage-in-transit warehouses, in branch warehouses, or moved directly to the trade?

2. Where should branch warehouses be located? Are present warehouses properly located? Does the company have too many or too few warehouses? (There were 12 company-owned warehouses from which wholesalers and retailers were served.)

3. Are the warehouses of the right design and construction to insure most efficient operation?

4. Does the handling of our merchandise employ the most economical methods and equipment?

5. What are the most efficient methods of handling merchandise through the various stages of its movement from producing plants, in warehouses, in deliveries to wholesalers, retailers, and eventually to the customer?

6. What transportation means should be used for lowest freight and delivery cost?

7. How should inventories be controlled and balanced with sales demand and production capacity?

8. How should orders be handled and filled for best and most efficient service to consumers?

As suspected, the study soon revealed inefficiencies with respect to practically all of these questions. Many of the company's warehouses were improperly located in relation to the markets served. Some were too close together and, as a result, there was overlapping of territory. Others did not have sufficient capacity, hence were unable adequately to serve their assigned trading areas.

Warehouse design and construction differed a great deal among the warehouses operated by our company. Some of our warehouses were multiple-story buildings, others were single-story. Some were square, some long and narrow.

Floor loads, column-spacing, loading-dock facilities, and order-assembly areas were obviously inadequate. Accordingly, warehouse operating costs varied widely. In our highest-cost warehouse, the cost per case of merchandise handled was more than eight times that of the lowest-cost warehouse.

Furthermore, it was found that the warehousing function was receiving inadequate supervision. Branch warehouses were under the ultimate direction of a district sales manager, who usually delegated warehouse operating responsibility to the head shipping clerk or warehouseman. This completely overlooked the fact that a considerable expenditure for labor was being given a relatively small amount of supervision and direction. As a result, only the daily warehousing routine was being handled. Little or no attention was being given to the opportunities for cost reduction afforded by new warehousing and handling techniques and equipment.

(Continued on Page 77)

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AIR EXPRESS

(Continued from Page 42)

in determining net earnings for distribution between the airlines and REA.

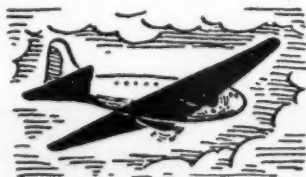
On the other hand, REA complains that, compared with air rates on ordinary freight air rates on express freight are too high; that, although requested to do so, the airlines have refused to reduce these rates, that the airlines do not provide adequate facilities for carrying all the air express which is tendered them, that they frequently carry air freight and air express on the same flights and give to both the same service; and that, on occasion, shipments intended for air express have been diverted by the airlines to their own air freight services.

The Board felt that there is some justification for these various complaints but noted that "it would be surprising, indeed, if the operation of this more than 10 million dollar annual business did not lead to some fault findings and some criticisms, and it is to the credit of all parties that constructive application of these criticisms have led to some improvement in methods and practices."

The Board held that as long as the matter of distributing the income from the handling of air express between REA and the airlines is left to REA and includes the necessarily complicated provisions for the deduction of "out-of-pocket expenses" by REA, there will exist uncertainties between the parties as to the accuracy of the ultimate distribution. There appears to be no reason now, says the Board, why the cost of providing air express ground service by

REA should not be the concern of that agency only. However it is plain that the airlines and REA cannot bargain in this respect, and toward such a result, so long as the airlines retain control of determining the rate which the public pays for air express service as stated in the tariffs filed by REA.

If this situation were changed so that the carriers were to make a charge against REA based on their costs of carrying air express, then the tariff rates to be charged the public could be determined and filed by REA. Under such a new method of making air express rates, a strong incentive would be provided for REA to keep its operating costs down and its rate to the public at the lowest possible level in order to compete with the air freight services of the airlines.



The charge for airline service to REA should, of course, be agreed upon between the air carriers and REA, subject to the approval of CAB, and should insure the transporting carriers a reasonable margin, and payments should be made by REA on a monthly basis with provisions for complete and accurate adjustments annually. Such charge should entitle the express shipper to space priority over air-cargo of other types, and the amount of the charge should reflect that priority. However, in arriving at a reasonable charge, the fact must be taken into account that much of the expedition afforded air express is attributable to the ground handling by REA and consideration must be given to the many functions performed by REA which the carriers have to perform themselves in connection with ordinary air-cargo.

An arrangement such as that proposed by the Board would pro-

vide a remedy for a bad situation which permits the airlines to set tariff rates for REA and at the same time compete with REA for air-cargo traffic. The Board, therefore, directs the airlines and REA to enter into negotiations looking to a new contract embodying the suggestions discussed above and that such new contracts should be submitted for approval within the next six months.

REA had requested that the CAB permit it to enter into contracts with, and make use of the services of, the non-certificated air-cargo carriers. REA contended that the fullest expansion of air express services is inhibited because of the inability of the certificated airlines to furnish adequate cargo facilities and to adapt their schedules to the needs of many shippers. The airlines opposed any extension of REA's present authorization expressing fears that a sizeable amount of the air express business would thus be diverted to the non-certificated carriers. The Board held in this matter that there seemed to be no reason for extending REA's authorization to carriers not yet certificated. REA, therefore, continues to operate only in connection with the certificated airlines.

REA had also requested that it be permitted to handle air freight as well as air express and that it be granted authorization to operate as an air freight forwarder. This meant that the CAB had to consider the differences between air express and air freight to determine whether both services should be performed by the same indirect air carrier. In so doing the airlines contended that the differences between air freight and air express are unimportant and that, through Air Cargo, Inc., they eventually intend to drop the present tariff distinction between the two classes of traffic and bring everything under a single air-cargo tariff. The Board however held that while air express cannot be distinguished from air freight by size or content of shipments; that air express is not necessarily and exclusively carried in passenger planes while air freight moves only in slower all-cargo planes; that sometimes the time in transit of air freight

New Uses for Koroseal

Koroseal, a B. F. Goodrich plastic, is now used as standard material for door lock levers and window grommets installed in General Motors automobiles. New uses for Koroseal now contemplated include vari-colored floor mats, seat covers to match the upholstery and a brake pedal covered in brilliant red. Many a driver has sometimes wished that he could have seen something bright to stab at with his foot instead of fishing blindly for a dark pedal tread.

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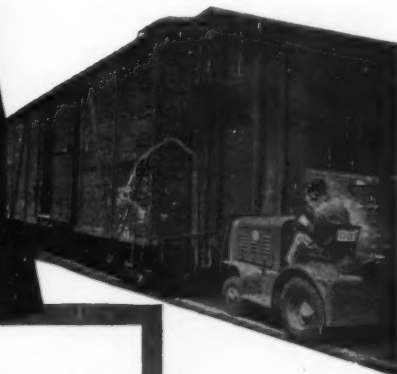
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Tampatch

United Laboratories, Inc. of Cleveland, Ohio announces a new product for high-speed repair of concrete floors. This new development, known as TAMPATCH, is applied to broken, rough or uneven concrete surfaces, interior or exterior.

BIG REGULATION

(Continued from Page 38)

have a more stable business. This was the case for a short time. In 1937 the Interstate Commerce Commission laid down directives which established minimum rates. The trucking business started to operate under these and at last began to make a little money. Class rates were the vogue, and everything was done to see that they were kept in line, but in spite of the good intentions of the truckers, the insidious head of special privilege began to be seen. Commodity rates were established for a few select commodities. The reason for this was good at the time. Carriers needed return traffic, and in order to get it they set up these commodity rates to attract that business. If that was the only way the truckers used commodity rates, it probably would have been good. However the privilege was soon abused, and the commodity rate became a two way operation.

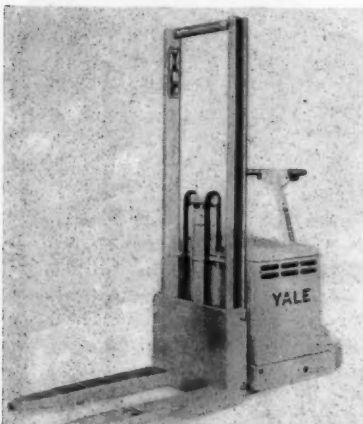
Along came the war and the lid was off with regards to routes, rights and commodities in certificates. Anyone who had a truck could use it for about anything merely going to the O.D.T. and

stating that there was a need for the service. This was right, because the government needed every truck and trailer that could be pressed into service to accomplish the job that had to be done by the motor carriers. However when the war was over the need was not there, but the carriers could not see their lucrative contracts going to pot without attempting to do something about it. Back on their regular runs, the only way to get traffic seemed to be the old method of commodity rates. Class rate tariffs became a minor matter, for by now there were so many commodity rates that almost anything that you could think of was an item in a commodity or exceptions tariff. Leading off this field were the durable goods; the irons, steels, brasses, and other very heavy items. After these came groceries and piece goods, and with them a hundred other items such as wools, paper, soap, paint and oil products. Also included were long lists of miscellaneous items which were supposed to be similar or related commodities which all went to the same destination.

The pay off came with MC 22, issued by the Commission, which instead of being a minimum rate order was a maximum rate order. This order allowed and even encouraged rate cutting by setting ceilings on class rates with no control over commodity rates. It was based on data that was at least eight years old, and which data

could not possibly take into account the precipitous rise in costs of operation. The net result of the order was to throw back on the railroads the less truck load freight which should belong to the truckers, and to make the same truckers accept car load freight at rates which are even less than the rail car load freight rates. To have truck rates less than rail rates is a poor economy at best, because the trucks offer a service which is more complete and superior in many ways to rail freight. For many reasons truck rates can always stand a slightly higher base than rail rates between the same points. In fact MC 22 went so far in many instances that the commodity rates were even higher than the class rates.

The reason for the bungling in this case was that the I.C.C. went ahead with its corrective program without competent advice from the trucking industry. The advice was there for the asking, but the bureau appeared to think of itself as a body above the trade, and beyond accepting the practical point of view of men who are up against the hard facts of business life. This, generally speaking, is not done intentionally, but only because a regulatory body is too apt



A small motorized pallet truck which can maneuver in narrow spaces has been announced by The Yale & Towne Mfg. Co., Philadelphia. This Workover truck is battery operated and lifts pallets 66 in. for tiering. One important advantage is the 1,965 lb. weight of the truck and battery, which permits its use in multi-story buildings having low capacity floors, or in elevators. The unit will be exhibited at the National Materials Handling Exposition which will be held in Philadelphia, Jan. 10-14.

SITUATION WANTED

Man 48 years old, in excellent physical condition, with over 25 years of merchandise warehousing and marine terminal operation experience in executive capacity. Thoroughly versed in operations, sales, advertising, insurance, traffic, etc. Special training in materials handling and pallet system. Location secondary, with good progressive establishment, with post war expansion plans. Can furnish unquestionable references, all past business career and achievements. Box E 545 c/o DISTRIBUTION AGE, 100 East 42nd St., New York 17, N. Y.



The above photo shows an overall view of the new one-ton Ruger Hydraulic Floor Crane. Listed as Model No. HP-18, this product of Ruger Equipment Co., Cleveland, is of substantial construction, and has "no tip" stabilizers which pivot over floor obstructions yet provide extra stability on heavy loads. Height is 73.5 in., outside width 32.5 in., and overall length 80 in. Boom height at highest position is 105 in.

DISTRIBUTION AGE

to see only the academic side of a problem, and not give proper consideration to the practical working out of theory in actual business.

In theory, the l.t.l. rates which were prescribed in this maximum rate order should have given the carrier a sufficient margin of profit to please him. However, this was not the case for two reasons: first the "weight breaks" made the rates on small shipments so high that the traffic was diverted back to the rails at the rail l.e.l. rates in spite of the fact that the truckers gave better service from point of time. This was particularly true in the longer hauls.

Second, the minimum charges are too low if we service minimum shipments. It takes a motor carrier just as long to process a hundred pound shipment as it does one of twenty thousand pounds. The revenue received on minimum charges is so small that the trucker can not afford to handle the business. If you added together the total amounts of a trailer load of minimums, you would have a very impressive total. The "sticker" is that this revenue would all be dissipated by the time the carrier solicited the business, paid his labor for loading and unloading, assumed his over-the-road haul costs, and billed out his freight. Minimums would put a carrier out of business if he had to handle nothing but that kind of freight. Truckers want the small shipments, but they want them on a basis where they can compete with the rail rates, and when there is enough meat on the bone to allow us to handle the shipment properly without going overboard costwise on service.

On truckload shipments the order just reversed the picture. Here in many instances the rates were set so low that they were less than the rail car load rates, and then of course the shippers are only too glad to give the truckers the business. It really amounts to giving us the business in more than one way, because plenty of times we are forced to haul at rates which are a losing proposition right from the start.

The straw that broke the camel's back was the method of determin-

(Continued on Page 75)



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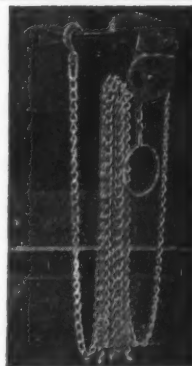
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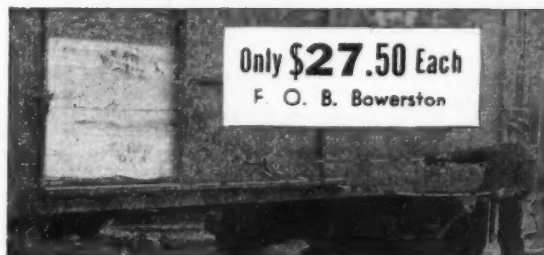
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ELEMENTS OF MARKETING

(Continued from Page 23)

customers receive orders promptly and as ordered, warehouse and shipping costs have been reduced 25 percent and sales have increased. High customer turnover means high selling costs, and customer turnover in this case had nothing to do with selling competence. It was due to bad coordination between the sales office, the warehouse and shipping room. Physical distribution in the handling and marketing zones was uncoordinated.

High turnover is usually blamed upon selling incompetence. But sometimes bad service is the reason and behind this bad service one often finds that physical distribution in the marketing zone is not up to standard. One company found after investigating high customer turnover that there was much dissatisfaction over discounts. The discounts given varied and their calculation was complex. The work was done mentally by clerks in the billing office. The complexity of calculation caused many errors, took a great deal of time, bills went out late, and collections were poor. The installation of calculating machines designed to simplify the discount calculation speeded up billing and reduced customer turnover to a minimum.

Another company, after analyzing sales, discovered that 40 percent consisted of small purchases, and that there was a loss on these. In other words, 40 percent of the business was unprofitable. The management revised its selling policy, instructed its salesmen to make sales in larger quantities, refused to take orders that were quantitatively unprofitable, and cut down its paper work in the office 20 percent. Its salesmen were rerouted so that 14 could do the work formerly done by 20; the extra men were sent to open new territories. Sales increased 30 percent and it was all profitable business. The revised selling policy necessitated additional changes in packaging, warehousing, handling and transportation, which also produced savings.

One company manufacturing many items had difficulty keeping a record of stock, consequently there were many "outs" and lost sales. The management had been using a perpetual inventory system operated by hand, but the clerks did the work so slowly that the inventory records were never up-to-date. Sales were lost because customer wants were not properly anticipated and the items they wanted were often out of stock. The management installed mechanical equipment for recording inventory and the figures are now available daily with one clerk instead of four. Sales increased, the cost of handling stock decreased and the management had important business data available daily. Streamlined recording systems are helpful in business analysis; providing centralized information quickly on sources of supply, past prices, delivery performance, sales, production, credits, collections and other operations; reducing general ledger work in the accounting department as much as 30 percent, and saving valuable executive time. They are needed by management to keep physical distribution in the marketing zone properly coordinated with those in the handling zone. Management must get all the facts, fast and fresh, about sales, cancellations, production, personnel, costs, inventory, etc., otherwise it cannot control distribution properly.

Business machines of many types can be used to speed up deliveries, step up sales or bring

in business at an even flow, eliminating the costly peaks and valleys in production. No marketing campaign should be planned without checking physical distribution in the marketing zone to make sure that the equipment in use is able to keep up with the increased output expected. One company did a good advertising job, brought in a big increase in volume, while production department met the demand and shipments went out promptly, but the company fell down badly on invoicing. In this plant, "figuring" was complex, involving posting, copying, pricing, sorting and filing, which slowed up the work. Bills were often 10 days late getting to customers, who had to pass discounts and complained or quit buying. The installation of 20 calculators solved the problem, bills went to customers promptly, collections improved. Accounting machines for figuring and posting are an aid to management because they furnish vital information quickly, without which management could not control physical distribution properly.

In many concerns the office and factory supply rooms are piled high with forms, some of them discontinued, many prepared at the spur of the moment by department heads without regard to their fitness to the operations of other departments using them. To handle operations with maximum speed, efficiency and accuracy, correct forms are vital. An analysis of the forms used in the purchasing, receiving, production, inspection, warehousing, accounting, selling and shipping departments was a job one management undertook. It combined some forms, and changed or eliminated others. This cut handling and marketing costs, minimized errors and speeded up operations all over the plant. Sometimes multi-fold continuous forms for typewriter and business machines will speed up operations from the receiving room to sale. Few managements realize to what extent the business form can make or break overall efficiency. Bottle neck forms, too many or too few, can waste manhours and money. Every management should make a periodic check-up of the forms used in the plant and should not

Universal Reduction Gear

A gear unit manufactured by Universal Gear Corp. is made in sizes from 250 to 3,000 HP, in reduction ratios from 1:1 to 3.5:1 and is a step-up, step-down unit in which torque transmission is sharply reduced, permitting the use of small simple couplings. These in turn provide such advantages as small oil capacity, absence of oil leakage at all speeds, and light weight. The gear prevents torsional vibration or shock loads from being transmitted from the propeller. These and other advantages, it is thought, will create demand in connection with river tow boats.

permit one department to issue a form without consulting some overall authority. Adequate form control is a vital factor in distribution control.

Often the filing equipment all through the plant is bad, desk drawers cluttered with important papers. Portable files, desk height, are time-savers in credit, sales, order, bookkeeping, purchase and executive departments. The files can be rolled from desk to desk, department to department, to facilitate paper work. The installation of streamlined filing systems, desks and compartments has reduced filing time 50 per cent, papers are handled at lower cost, misfilings are eliminated. The filing of papers is important, yet management often tolerates horse-and-buggy filing systems that make distribution control difficult and increases its cost. A good filing arrangement in each department is a big step toward effective distribution control. The use of micro-film is coming into the picture. Managements using them say that they are big space-savers when records are stored. It has also been found helpful to standardize all filing equipment throughout plant, wherever feasible.

When budgets are planned, physical distribution in the marketing zone should be carefully considered. Usually, management thinks only of the handling zone in this connection. But addressing machines, mechanical typewriters, streamlined bookkeeping equipment, dictating machines, automobiles for salesmen, etc., are as essential to the attainment of budgetary estimates as handling, storage and carrier facilities. Sometimes the equipment used in the marketing zone can be operated for the benefit of handling, storage and production. For example, addressing machines may be used to cut selling costs on mailings and to list part numbers, descriptions and names frequently written in by hand at considerable expense in the production and storage departments.

We have discussed so far the internal problems connected with physical distribution. Producers have no direct control over physical distribution in the wholesale

and retail field. A wholesaler or retailer whose business is operating efficiently from the standpoint of physical distribution is a better customer than an inefficient operator. For this reason, producers should consider internal arrangements that build volume and cut costs. The sales departments in some concerns are using functional photography to good advantage showing retailers and other customers how to profitably modernize.

In the merchandising field, physical distribution often does most of the sales work. Functional photography can also be used to good advantage in connection with safety campaigns, job trainees, sales promotional work, etc.

In the ideal plant, the synchronization of departments is perfect, there is no lost motion, no bottlenecking of the flow anywhere between storage and the customer. This goal is approximated only when physical distribution in the handling and marketing zones is carefully supervised by top management and each function of operation is well coordinated with other functions.

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EVERY MILE OF THE WAY

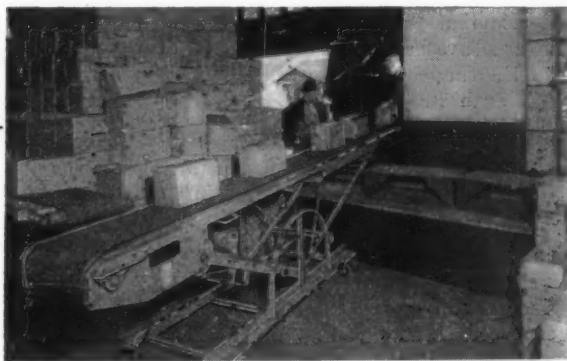


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IMPROVING PRACTICES

(Continued from Page 40)

All of the findings and corrections of the Bureau are made of value to the entire Chicago area motor freight industry through the periodical issuance of official Bureau Bulletins. These lists of corrections reported include name of shipper, incorrect description, correct description, and item and rating as shown in the official National Motor Freight Classification No. 9.

Of course, when a shipper enters on a bill of lading an incorrect rating description of goods offered for shipment, this might involve a considerable percentage of the revenue due from the shipment, and if deliberately done would be in violation of the official shipping code. However, Strickler stated to the writer the opinion that nearly all of such incorrect statements undoubtedly are chargeable to ignorance; and in many cases there is room for honest difference of opinion. However, he assumes that "some rates were originally established to meet competitive conditions"; and also that "some specific item ratings have been wrong for years." He further assumes that many of such incorrect descriptions made by shippers are chargeable to shipping clerks and even Traffic Managers poorly trained and really "not able to read the National Motor Freight Classification." In practice, many shipments received by motor carriers are inaccurately described through a confused attempt to use a trade name or trade description of goods to establish their classification.

Connecticut Meeting

The Connecticut Warehousemen's Assn., at its annual business meeting in the Hartford Canoe Club, appointed a Merchandise Warehousing Committee under M. E. Kiely, chairman, and John E. Hyland, vice-chairman. These officials will give particular attention to the problems of the many merchandise warehousemen included in the association's membership. Another example of initiative is found in the association inviting a fire marshal to give a talk and demonstration on fire prevention in warehouses.

Another carrier problem is weights. Many shippers show on their bill of lading with goods offered for shipment only an estimated weight; this is a real problem because, as stated by Strickler, "only a few carriers have scales or make any effort to verify weight. And does it seem strange," he added, "that seldom does the estimated weight by the shipper ex-

Zone Charge

The Small Shipments subcommittee of the American Trucking Assns. is considering the establishment of a national territorial directory to list the zone in which a given town is located and to use this directory for determining charges for small shipments without reference to freight classifications, ratings or rates per cwt.

The problem is complicated by the fact that shipments of less than 300 lb. involve relatively high costs to carriers. The subcommittee, instead of feeling that freight rates should be raised, has taken the position that reduction of handling costs is the objective. The Zone charge plan is a part of an overall conception of a Motor Carrier Small Shipment Service, involving prepayment by the shipper and reduction in costly paper work.

ceed the actual gross weight?"

He also expressed the opinion that "it is much better for a shipper to show no weight whatever than to mislead the carrier by indicating estimated weights which are incorrect." He described one such amusing example, pertaining to two shipments from the same shipper. One was described as "1 crate—Power Pumps—49 lb." The other was described as "80 crates—Power Pumps—1,600 lb." The power pumps and packings were uniform, and the actual gross weight of a crate was 46 lb.; thus giving a total of 3,680 lb. for the larger shipment.

There is much trouble also with "packing". Rule 5 of the Classification assumes that the carrier shall refuse any article not packed for assumed "reasonably safe and practicable shipping." However, Strickler states that in practice a carrier seldom will make such a judgment and thus rarely does refuse a shipment. And if damage does result, the Court decisions on

carrier liability seem conflicting, variable in their interpretation as to whether it had been apparent that the goods were improperly packed or adequately protected; or, if properly packed, whether the carrier then had been guilty of negligence in handling.

Another troublesome carrier problem is due to the use of fibre-board boxes, and whether a particular box is "properly protective." Strickler reports that many carriers, and also shippers, are not familiar with the official classification specification for such boxes. Many shippers have also been using second-hand boxes; and there have been many suspicions that in some cases box makers certificates had been placed on inferior quality boxes. Also, neither average carriers nor shippers have facilities for making their own tests, and testing laboratories are not always available. However, carriers are well aware that such testing inability does not release them from possible shipping damage responsibility.

Motor carriers also are giving attention to the "astray" losses from boxes not properly marked; and they are passing on to shippers the suggestion that a package always should show the name of consignor, as a tracing aid.

Another tough carrier problem comes through the fact of no specific I.C.C. provision regarding delivery receipts. It is a rather common Chicago practice for a consignee to give to a motor carrier only a conditional receipt for a shipment delivery. This practice has been stimulated by unloading delays at consignee's dock; by refusal of carrier to permit the driver to wait until large deli-

Aluminum Crane

A welded aluminum electric traveling crane, believed to be the first of its type, will be built by Provincial Engineering Ltd., Niagara Falls, Ont. All structural work will be made of extruded and rolled sections with strength approximately equal to steel and with one-third the weight. This permits increased lifting capacity without increase in gross load, may increase economy in the construction of a building and reduce power consumption. Maintenance is lowered by the fact that painting is not necessary.

veries could be counted and inspected; by consignee delays in making concealed damage inspections; and also by carrier refusals to consider any claim later received.

As remedies, Strickler suggests that consignee should provide facilities for prompt handling of shipments; that the carrier should permit his drivers to take time for proper off-checking; that consignee should then make spot inspection of evident damage, and make later prompt inspection of concealed damage; and that the carrier then should respond with prompt handling of possible claims. But Strickler is of the opinion that the practice of conditional receipts should be discontinued.

The Midwest Group of the National Shippers Advisory Boards, in close cooperation with the Freight Claim Division of the Assn. of American Railroads, is stimulating another type of activity to improve shipping services in their assigned area. This includes Iowa, Illinois, Indiana, Wisconsin, and Northern Michigan. Of course, the annual climax of their activity is aid in promotion of their April "perfect shipping month" program. In Chicago this always means a big annual meet-

ing staged in cooperation with the Traffic Club of Chicago, usually with a speaker of national prominence and with the support of all local transportation agencies. This will include a large attendance of prominent rail carrier and motor freight carrier executives, who will mingle with local shipper traffic managers.

The Midwest Shippers Advisory Board, on October 27, held a meeting at Fort Wayne, Ind., at which time they launched a new type of program to make shippers "claim minded" and to stimulate their interest in improved rail shipping. The meeting was attended by many prominent shippers, traffic managers and railroad officials. The plan is for each consignee of a rail shipment, immediately after it is received, to follow up by making a post-card report to the consignor, and also the rail carrier concerned, as to arrival condition of the shipment. This is supposed to include specific reference to loss and damage evidence; and if any, a brief statement as to assumed causes.

In this particular field of shipping-improvement activity there has been encouragement from the A.A.R. Freight Claim Division. It was stated, at the recent October annual meeting at St. Louis of the National Assn. of Shipper Advisory Boards, that for the first seven months of 1948 there had been a reduction of 14 percent in the number of claims filed with the A.A.R. Freight Claim Division by shipper claimants, as compared with a like 1947 period. However, for this period there had been an increase of 11 percent in the total amount paid out by the railroads in loss and damage; and this was explained in part by the constantly rising prices "for almost everything that the railroads pay for in claims."

The Industrial Traffic Council of the Chicago Assn. of Commerce and Industry is an important local agency in the Chicago industrial area for the coordination of local activities to improve shipping services. These activities include a number of committees in which both shippers and all types of carriers meet in conferences to discuss and promote shipping improve-

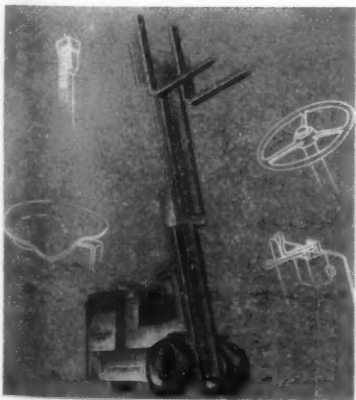


A new truck incorporating fluid drive was announced by L. F. Van Nortwick, Dodge Division, Chrysler Corp. Planned to reduce costs in use, the truck is adapted to frequent-stop delivery and has two rear axles, a differential assembly mounted on the chassis frame and an electro-hydraulic brake holder. The floor is very low; this is made possible by the specially designed rear driving axle, which operates separately from the load-supporting rear axle. Payload capacities range from 1,075 lb. to 4,500 lb., with body capacity of 462 cu. ft. The Route Van has large door openings and a windshield of 1,870 sq. in.

ments. A recent encouragement has come from the rail carriers, through a report of improved on-time performance by the extensive rail "package car" services out of Chicago. This performance was better for the month of July than for any single month since December 1942. That is, during the month of July 26,748 "package cars" were forwarded from Chicago. Reports were available for 22,875 of them; and of these, 64.8 percent indicated on-time performance in the placement of cars "on schedule" at 460 different unloading destinations. Of the remainder, 22.7 percent of the total were one day late; 6.8 percent were two days late; 3.1 percent three days late; 1.5 percent four days late; and 1.1 percent five or more days late.

The C.A.C.I. Industrial Traffic Council is promoting shipping improvement by asking the railroads east of Chicago to protect winter shipping by adding heated freight car service. This is needed especially for such perishables as wax, polish and mayonnaise.

The Chicago Claims Prevention Bureau affiliated with the Claims Prevention Bureau of America Trucking Assns. for several years has been carrying on a program especially aimed at control of motor freight loss and damage. The group holds monthly meetings of 50 to 60 representatives of the Safety and Claims divisions of leading motor freight operators into and out from Chicago.



A full-fledged, low cost electric fork truck said to equal in performance any fork truck of similar capacity has been added to the Transporter line. This product of the Automatic Transportation Co., Chicago, called the Transrider, stresses low initial investment rather than high speed. Among the advantages incorporated into it are drive on the load wheels, high pressure hydraulics, modern controls and a telescopic lift which can raise a load to 130 inches. Capacity is one ton with 48 in. load, 2,500 lb. with 36 in. load and 3,000 lb. with 28 in. load.

HANDLING L.C.L.

(Continued from Page 46)

three sides already locked in place on the pallet, as shown in the illustration. The pallet carrier four "L" iron pockets to accommodate the stakes of the four sides which are fastened together at the corners by locking hooks. When the container has been sufficiently filled, the fourth side is hooked in place and the top is put on, which has a banding action of holding the corner posts of the four sides solidly together. Moreover, if desired, the top can be sealed in place, giving the advantage of sealed car movement of each container of that material.

"The pallet used is a double-faced two-way type which can be readily picked up from either side by fork-lift trucks. Future containers are to be four-way entry with sides lined with hardware cloth to prevent pilferage. Obviously, the handling can be done by any one of the three types of handling units: a large four-wheel, fork-lift truck in which the operator rides on the truck; by the 'Worksaver' fork-lift truck in which the operator walks or rides and operates controls through switches on the handle; or if tiering is not required, by the smaller hand-operated lift truck which raises pallets only a few inches from the floor and which may or may not elevate the container.

Whiting's New Trambeam Crane

The Whiting Trambeam Overhead Crane and Monorail System will be displayed at the Third National Materials Handling Exhibition in Philadelphia on Jan. 10-14, 1949. The importance of this step is emphasized by the fact that Whiting's position in the light crane and monorail field was speeded-up by the company's purchase last May of Spencer and Morris, Inc., Los Angeles.

A full size crane and monorail system with automatic hoisting and interlocking mechanisms will occupy most of Whiting's Booth No. 801, and serve to show the East and Middle-West what the Trambeam system is, how it operates and how it has been developed by Whiting engineers.

"Inasmuch as the distance between the receiving platform and box cars being loaded is not great at our stations, the 'Worksaver' unit was selected as best fitted to our operating conditions. From the pictures it will be noted that this unit not only picks up and transports the loaded pallet, but it raises it to a height of 10 ft. for tiering two pallets or even three pallet-containers high in the freight station to conserve storage space. The 'Worksaver' is a three-wheel unit, the single front wheel being both for power and for steering and the two other wheels at the fork end of the unit providing maximum stability. The single front wheel provides maximum flexibility for movement in confined places and turns within a radius of 59 ins.

"Sixteen pallet-containers are placed in each end of a 40 ft. box car or 20 in each end of a 50 ft. box car and the bulkhead facing the containers is held firmly in place by the three bands of steel strapping which have been previously nailed to the posts of the car. Four more pallet-containers can be added in the doorway space and these blocked between the end sections. Because of the assembly of the 32 or 40 pallet-containers as finally loaded in the car, the lading is divided into top and bottom 4 ft. sections and bulkhead every four feet. With the bulkheading of the pallet sides being held firmly in place by steel strapping, the lading is likewise held firmly in place in small 4x4x4 ft. cube units, which prevents the piling up of stresses on the lading with crushing effect in rough handling of the car. The result has been that there has been no damage whatever in the handling of L.C.L. material in palletized containers throughout the entire five months of this experimental operation. This has included the

handling of much light perishable materials such as light bulbs and heavy perishables such as candy.

"While reduction in handling costs is the chief objective of this research problem, the secondary savings in loss and damage claim elimination or its great reduction, is developing as a most important by-product of this improved service. Where the whole carload shipment is subdivided into 32 different cells, half of which are firmly held in place in each half of the car, it becomes practically impossible to damage the lading that is contained in these small units.

"The practice of holding L.C.L. shipments until a minimum carload of 20,000 lb. has accumulated has been an outstanding cause of delays of L.C.L. movement and is one reason why the highway trucks have been able to invade so heavily into this class of service.

"If we can just revise our thinking in this respect so as to consider the pallet-container as the box car, waiting for its load, and hold it only until the container is filled, the container becomes our box car, the materials handling unit our switch engine, and the freight car filled with pallets destined to various points becomes our freight train. It's then easy to see how L.C.L. movements can be greatly speeded up, at least in respect to time required to transfer shipments and to properly and quickly stow freight in the car. Of course, we'll still need to hold shipments until a minimum load of 20,000 lb. has been accumulated,

Third Structure Taxes

The Board of Directors of the American Trucking Assns. adopted a taxation report on the elimination of third-structure taxes. This report, which is advisory and is intended as a basis for discussion in order to create better understanding between taxing authorities, highway officials and the trucking industry, advocates state highway study committees, highway planning with elimination of toll roads, equitable allocation of costs of a highway program, no waste of highway funds and an expeditious development of the National System of Interstate Highways at appropriate high standards.

going to the various stations that are to be covered by that particular l.c.l. peddler car. Accordingly, we have licked a real station storage problem.

"Obviously, the economies to be effected in handling l.c.l. in pallet-containers depend upon eliminating all man-handling of individual packages as much as possible. To get the greatest economy the lading should be placed in the pallet-containers in the shipper's storehouse, or preferably at the end of his production line and stay in the pallet-container right to the consignee's storehouse or the point where it becomes necessary to break bulk. That would involve off-line movement of pallet-containers to both shipper's or consignee's storehouse. It was thought that return of empty pallets or the takeout of empties for inbound shipment would involve difficulty in getting the trucker to handle the empty pallets. But this is not the case, for the great saving in time in loading or unloading the truck more than repays the truck driver for the trouble of handling the empty pallets and the drivers all seem glad to do this for us. There is, of course, a great saving where freight shipments are received already palletized in containers, so there is a great advantage to the railroad in lending the containers to certain shippers. Our containers are all numbered and a record of the number of each container furnished is kept as issued to that shipper, and credited when it is returned with freight shipment,

"Of course, the bookkeeping side of keeping track of the containers will increase as their number and the extent of their operation increases, but this is very small in comparison with the great economy which the pallet-container handling of l.c.l. will make possible."

The description of this experimental set-up in actual operation enables us to obtain a clearer picture of the future of pallets in transportation. It gives us a more adequate conception of the needs of the railroads and the shippers.

MEN AND METHODS

(Continued from Page 32)

factory manager to foreman, what they believed their responsibilities to be.

Next came a series of monthly conference meetings or forums for all supervisory levels, led off by Mr. Batt who outlined the philosophy behind the course. During the first year, 1946-47, the company's top executives gave the factory supervisors an insight into the functions and purposes of the firm's various divisions—sales, engineering, market research, personnel, etc., and pointed up the need for close working relationships. Last year the forums were devoted to manufacturing problems with the next level of supervision—plant

superintendents, department managers and general foremen—heading up the discussions. This year the participants will be foremen who will lead panel discussions on such topics as human relations, cost control, technical improvements and the union agreement. By next May, some 80 supervisory employees will have taken part in these meetings as speakers or discussion leaders.

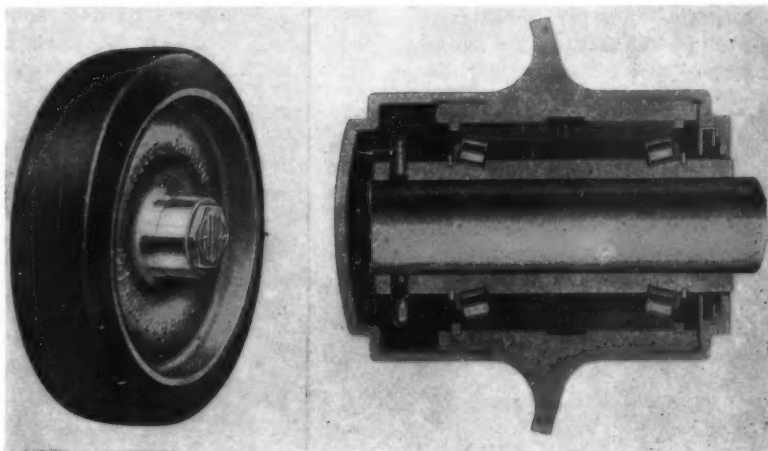
Supplementing the forums are weekly "up-and-down-the-line" meetings for all levels of management. These start with weekly staff conferences held by Mr. Batt. Then the factory manager, who is a member of Mr. Batt's staff, meets with his own group which includes the plant superintendents. Next come meetings between plant superintendents and their general foremen and then others between general foremen and foremen.

Thus the SKF program continues in line with the philosophy that every supervisor shall be given the opportunity to capitalize voluntarily on his own abilities with full realization that his own personal development is proportional to the amount of initiative and energy that he cares to expend.

HELP WANTED

Traffic Manager: No limit on salary. Large Eastern Distributor requires man not interested in desk job. Must have practical knowledge of rail and truck shipping problems. State age, experience, salary expected, etc.

Box F 656 c/o DISTRIBUTION AGE,
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Duo-Thrust Wheel

A cartridge-type bearing wheel for industrial trucks is on the market. The disc wheel of aluminum alloy, with molded-on neoprene tires resistant to oil, acids, etc., is specially suitable for use in the meat industry. The product functions under wide temperature ranges, requires little care and offers resiliency when moving over rough floors, thus reducing wear. An important feature of the wheel is its radial angular roller bearing, which incorporates "the two important bearing functions in the same bearing—radial loading and thrust loading." The wheels are interchangeable with standard wheels. Globe Co., Chicago, Ill.

PUNCH CARDS

(Continued from Page 59)

costs are usually prohibitive, and the figures are recapped too late to be of much real value. But where material is available simply by taking punched-cards prepared for other purposes, piling them into high-speed sorting and tabulating machines and letting them produce the figure facts fast and effortlessly, the true value of full sales analysis data is there apparent.

"Although there is some danger of becoming too 'systems conscious' (preparing all sorts of reports; some merely because they look effective), the proper development of control procedures requires that all reports vital to good management be available. Some of these are called for by federal, state and local laws: others are prescribed by good management.

"There is often a mistaken idea of the salesman's relationship to sales statistics. It's not his function to prepare sales summaries—his job is to study, interpret and follow up on figures and facts presented to him by accounting."

Before presenting a general description of the "how, why and what" of Federal's punched-card procedures and the benefits attained, a word about staff training, space requirements and similar

considerations. Again to quote Norman Feldman: "The punched-card accounting machines actually present few serious problems in personnel adjustments. Since the operations are largely automatic, whatever complexities there are, are largely confined to the machines themselves. All of the members of our Tabulating Department staff have stepped right into their posts from brief on-the-job training by Remington Rand specialists. This in no way slowed things down at the time of the switchover."

Step 1 in the practice now used by Federal is to set up punched-cards for each customer. This card, with its 90 columns of digits, actuates the printing on an Alphabetical Tabulator of the customer's name, address, the salesman's code number and other data necessary for invoicing and reports.

The actual control starts with the receipt of purchased merchandise at the warehouse. A Master Unit Commodity Card is punched for each size in each brand handled by the distributor. Additional punched holes give the detail representing brand description, tax code, producer's code, producer's name, origin, registry number, gal-

lonage, base price, extended price and cost and commission.

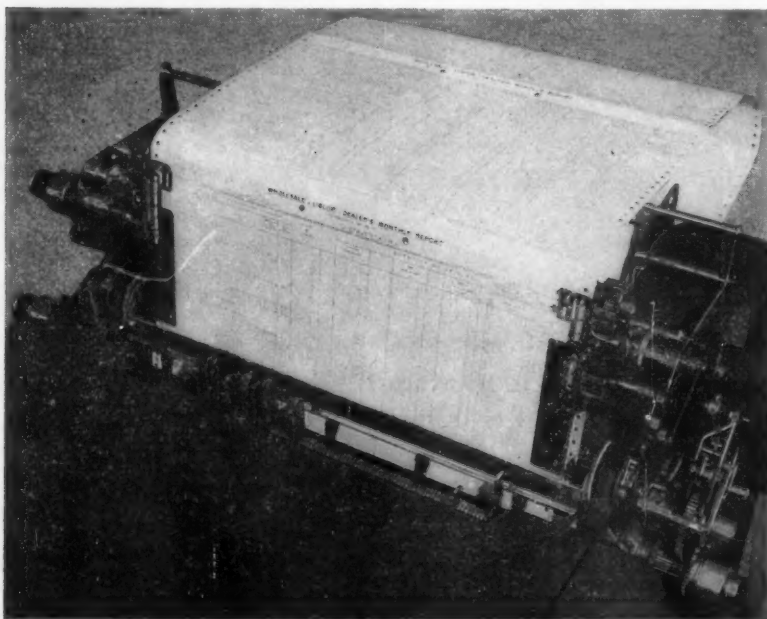
When shipments are received from the distillers or other vendors, the warehouse notifies the office of the quantity of each brand and size. Clerks select Master Unit commodity cards from the files to correspond with the description of the merchandise. Putting these cards into a Multi-Control Reproducing Punch, the clerk duplicates a Unit of Stock Inventory Card for each unit of stock received. This Unit of Stock card can be punched for cases or individual bottles, according to the unit in which it will be sold. If five hundred cases of "fifths" of a certain brand of whiskey were received, and are to be sold in case lots only, then a Unit of Stock card would be made out for each case. But if these were to be distributed by bottles, then cards would be prepared for the total number of bottles received. Should it be desired at any time to change the unit from cases to bottles, this can be done by punching the new cards required containing proper change in unit size.

Each day the cards representing the total number of units received for each brand and size are run through a tabulating machine (equipped with Summary Punch) which counts, totals and prints the Daily Tabulation of Receipts Increasing Inventory from these cards. A Daily Brand Receipts Summary card is automatically produced for each brand and size as this report is being printed. These Summary cards, besides showing quantities received, also provide all other information contained in the original Master Unit Commodity card.

At the end of each month, these summary cards are sorted and tabulated to give a State Tax report, a Purchase Report by Brand and State Class, and a Recap of Purchases for use by the comptroller. These four reports give management a complete and accurate report on every unit of stock received into the warehouse, together with all information needed to properly record the entire transaction.

After the Unit of Stock inven-

(Continued on Page 76)



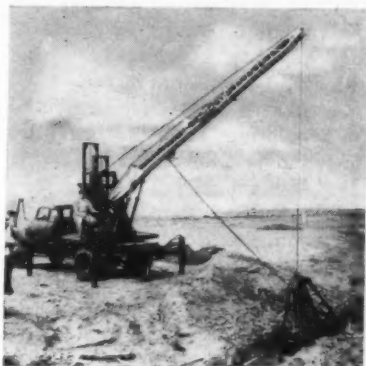
REGULATION

(Continued from Page 67)

ing costs. This order was predicated on cost figures which were at least eight years old. With the way that prices have gone in the last eight years, no cost analysis that old will stand up today. Tires, gas, oil are up by amounts which can be loaded on a cost study. The part that is hard to load is the maintenance and labor costs. In the trucking business, you never know from one day to the next what your repair costs are going to be, and it is axiomatic that every time the unions go out for an increase they get it. How much that increase is going to be you never know until you have to pay the bill. How much of a bite will be put on you for municipal, State and Federal taxes next year? You don't know. Just try to anticipate what your equipment will stand you next year and you will want to get out of business.

The net result is that the motor carrier is caught in a vise, one jaw of which is the unknown cost of operation and the other an inflexible governing body. We are not allowed to raise our rates to a compensatory level, but must meet and overcome all the attendant increased costs. When a railroad petitions the I. C. C. for an increase in rates, it is almost automatic that they receive the increase. They have been in existence for over a hundred years, and by that token they are supposed to know what they are doing. They work on old theories of valuations, costs and maintenance schedules which were set up in 1887, and because their existence is so vital to the economy of the national welfare, they receive preferential treatment. The investments in the railroads are national in character and the government has a stake which must be protected.

The motor carrier business is a fledgling whose wings have not been fully tried as yet. Our investments are not national in scope. Largely they are the investments of individuals and very small groups of persons. No motor carrier lists his stockholders by the thousands as do the rails, and



A new 3-ton capacity Hydrocrane designed for economical handling of small jobs is now on the market. Produced by the Hydrocrane Div. of Bucyrus-Erie Co., Milwaukee, the Model H3 is easy to maintain and simple to operate since hydraulic operation of the crane does away with shafts, drums, gears, clutches, brakes, chains and sprockets. This simplicity makes the equipment impervious to excessive or sub-zero temperatures. Another advantage is the crane's ability to move over highways at high speed. Without the truck, the crane weight 9,375 lb.; when truck-mounted, the overall length in traveling position is 24 ft. 6 in. with overall height 10 ft. 6 in.

therefore individually they can not raise cain when things do not go to their liking. This, however, is one reason why they should be given as much consideration as the rails.

With the motor carriers, the Commission is dealing with a large group of individualists and an army of exponents of free enterprise. That the maxim of free enterprise is the backbone of the American way of life can not be denied, and when it is stifled by a Commission, which tries to apply



A cab, made of heavy-gauge sheet steel with ample windows and insulation is now available for driver protection on the Yardlift "40" and "60" models of Clark Equipment Co., Battle Creek, Mich., fork trucks. Since these trucks are used for outdoor operations, the cab is valuable in maintaining efficiency in cold or wet weather. Accessories include windshield wipers, heater and defrosters.

to individuals the rules that were laid down for control of large corporate enterprises, there is something wrong with the control. True, the I. C. C. prevents many abuses in the methods of doing business, but is it right to allow this governing body to control the rates of motor carriers to the extent that the carrier is not permitted to charge more than certain fixed maximum charges? We can see some sense in their putting a floor on rates, provided the floor is a just and equitable one and that the reason for laying it is to keep the carriers from going broke; but why do they insist on setting a ceiling?

A ceiling doesn't have to be put on any rates because shippers will only pay charges which are reasonable enough to allow their products to be sold at a profit. What happens if the motor carriers get their rates too high? The shippers go shopping for a lower rate. They can get it in many ways. They can get it by increasing the weights of their individual shipments, by getting reclassifications if they are entitled to them, by use of rail or contract carriers, and even by putting on their own vehicles to haul their merchandise. These factors will keep any rate down to a reasonable amount. It is not necessary to issue maximum rate orders to protect the public, for the shipping public is far greater and more powerful than the motor carriers.

What has happened is that the motor carriers have allowed the strict control, which is necessary for monopolistic railroads, to be applied to us as individuals. We have allowed a body of a few men to dictate to us what comprises law, and have subjected our initiative and selling ability to regulation which was designed for huge corporate enterprises. We accept without question control of our right to show a profit. It is time that we as individuals took notice of the infiltration of bureaucracy into our business. We must stand up on our hind legs and protest the strangulation of our right of free enterprise. There is too much regulation and too little control over our own business.

PUNCH CARDS

(Continued from Page 74)

tory cards have been used to produce the daily Tabulation of Receipts Increasing Warehouse Inventory as well as the summary cards of Warehouse Receipts, these unit cards are inserted into their proper locations in merchandise tub files.

These are open-top files containing a Unit of Stock card representing each unit of stock actually in the warehouse. They are filed behind the respective index card for each brand and size of merchandise. This type of merchandise inventory file has been in extensive use by chain store operators and has proved to be the most efficient method for handling and controlling a variety of products in volume.

As orders are received for filling, the clerks select from the Address Files a card punched with the information necessary for billing the customer for whom the order is being filled. This card contains, besides customer name and address and other information, the code indicating the salesman handling the account.

The clerks then select from the merchandise tub files a Unit of Stock Inventory card for each unit called for on the order. For example, if an item calls for ten cases or three bottles, a separate card is pulled from the file for each case or bottle. These cards are collected behind the customer card until the entire order has been filled. If an item cannot be filled or can be filled only in parts, such a notation is made on the order and the information is filed for action in accordance with company policy for handling unfilled orders.

Each card selected from the files represents a unit of stock actually on hand in the warehouse, signifying that the order can be filled in accordance with the cards selected. The customer card and the stack of Unit of Stock cards thus selected from the stock files are run through the tabulating machines, automatically producing the invoice bearing the customer's name and address, salesman's code number, terms, etc. A single tabulator

will prepare approximately twelve hundred invoices per day, so that the volume of billing in excess of this quantity is gauged by the number of tabulators in use.

As fast as cards have been used for tabulating the invoice, they are immediately transferred to another tabulator which prepares the required 52 B Federal Report and any State Tax Report on sales that is required. With this procedure, a single clerk can handle all invoicing and the preparation of Federal 52 B Report at the same time—and this important report is ready almost as soon as the billing is completed.

The punched-cards for each customer's name and address are automatically sorted out of the cards used for invoicing and a state tax report is produced from the original Unit of Stock Inventory cards. A summary card for each customer's order is punched as an automatic by-product of this state tax retail sales report. When each day's billing has been completed, these same Unit of Stock Inventory cards are filed for the necessary weekly reports.

Changes in warehousing and delivery procedures which have accompanied the switchover to punched-card accounting have led to greater speed and economy in these operations. Stock picking in the warehouse has been streamlined through the arrangement of items to correspond with the manner in which they are listed on the invoices. There is no back-track and there is no time lost hunting for out-of-stock items, since only cards representing actual stock-on-hand have been pulled from the merchandise tub files to be used in the printing of the invoices.

38th Annual Get-Together of American Chain of Warehouses, Inc.

The "to-do" takes place on Feb. 6 at the Fairmont Hotel, San Francisco, at 2:00 P. M., in the Garden Room.

The Secretary's office has completed arrangements with the Fairmont organization for the usual luncheon for members and families. This will take place on Feb. 6 at 12:30 P. M. in the Garden Room.

GOOD PACKING

(Continued from Page 52)

ing was adequate, and that the carriers were at fault. He filed test claims which were refused by the carriers. Then he was asked to inspect the merchandise on hand at the warehouse and to call in a packaging engineer.

The engineer made a complete survey of the transportation, warehousing and distribution of the article. As a result of his survey a new method was devised which calls for a reinforced carton with the article suspended within. It was agreed that the packing which had been previously used was sufficient where only one handling was involved, but it would not hold up when reshipping of the product was required.

Errors can be made in the matter of too much packing, although these cases are not as numerous as those involving too little packing. A case was discovered recently where one of the suppliers of a downtown department store in San Francisco was shipping cotton piece goods from Alabama in wooden cases made of one inch southern hard pine lumber. These boxes, when empty, weighed 146 lbs. As all the merchandise was shipped by less carload freight, the cost of moving the boxes was in excess of five dollars. The cost of the container was also very high. A packaging engineer was called in. The result was the use of a fiberboard, wirebound case with a weight of 34 lbs., which was purchased at a cost of less than fifty percent of the wood case.

Millions of dollars are being wasted by American industry because of sheer ignorance of the many factors involved in packing. There are men especially trained and experienced in this problem. American industry can reduce the cost of goods, increase its profits, and give the customer the satisfaction and service which he has a right to expect, by bringing in the man who knows, the packaging engineer.

WAREHOUSING COSTS EXCESSIVE?

(Continued from Page 63)

Further research into the warehouse-design problem involved visits to find out what progressive wholesalers as well as manufacturers had done. This survey disclosed that the matter of warehouse design was closely tied in with the question of handling and moving merchandise. It was found that progressive wholesale distributors have taken a new view of the warehouse building. Instead of using the building as a storage warehouse only, they now also see it as a machine for the low-cost movement of merchandise.

Although our factory managers had adopted various types of modern trucking and materials handling facilities to reduce labor costs in our plants, these very same ideas and methods were not being used in our warehouses. As a result, there was a tremendous amount of handling and rehandling of individual cases throughout the entire distribution process. By actual count, it was found that a typical case of finished goods was physically handled 14 times before it was delivered to the customer. The 14 handlings per case meant a tremendous amount of labor expense.

A study was made to determine whether the so-called "unit-load principle" of handling cases could be utilized in our distribution operations. This method involves the use of pallets and fork trucks which makes it possible to move 25 to 50 cases of merchandise as a unit load, all at one time. We found that, instead of the 14 handlings involved in our old methods, the new method would require only three handlings of each individual case of merchandise.

We concluded that the change alone, by the shipment of merchandise on pallets between our plants and warehouses, would make it possible for our company to save over 9¢ per case of merchandise in warehouse labor costs at present wage levels. That is more than enough to cover the amortization of the new equipment in a very short time. Accordingly, we decided to use this method of moving

merchandise whenever possible.

Of course, it was not easy to effect this change and to decide on the proper kind of equipment and size of pallet. Many problems were involved, and it was necessary to make changes in many related operations. For instance, we ship both by freight and by truck. We had to design a size of pallet that not only would fit economically within the 98-in. width of a freight car, but which would also facilitate the operations of the fork truck within the freight car. It also had to be adaptable for economical use in the available space in trucks.



We had to consider the best size and shape of our cartons to use economically the maximum available surface area of the pallet. In some instances, economical case size required 10, 14, 16, 22, or 28 units in a case instead of the traditional 12 and 24. Of course, at first, our sales department objected strenuously, but later they agreed that there would be actual advantages in selling our products in odd case sizes. Pallet sizes and choice of equipment were also influenced by the design and construction of our warehouses—by column spacing, aisle widths, ceiling heights and floor loads.

In short, we were not unduly influenced by our unit size or case size or by the limitations of any current warehousing practice when deciding whether we could use the most modern merchandise-handling techniques. By taking a fresh objective approach to the problem, we were able to achieve substantial reductions.

Our new department also uncovered another source of economy in exploring one of the questions presented to it. We found that whenever we could ship a pallet-

load of goods directly from our production lines to a branch warehouse—by-passing a plant warehouse entirely—we could save about 5 cents per case. To do this effectively, however, meant that we had to do a better job of production planning and inventory control than formerly.

In many instances, merchandise was being placed in plant warehouses which could have been shipped directly to branch warehouses. Furthermore, because not all plants manufactured our complete product line, inter-plant shipments were being made in order to accumulate a sufficient quantity of several items to make up a full carload lot to be shipped to the branch warehouses. This frequently created a condition of overflowing plant warehouses, with all the inefficiency that this involved, and relatively empty branch warehouses. Of course, our traffic manager had been working on the correct principle that only full carload lots should be shipped. Our district sales managers, however, wanted a variety of merchandise to come in at one time, rather than carload lots of just one item at a time.

We solved this dilemma by taking greater advantage of the storage-in-transit arrangements offered by the railroads. Under this arrangement, we are able to ship full carload lots directly from the production lines at our several plants to intermediate storage-in-transit public warehouses. These are located strategically in order to facilitate the most economical routing to branch warehouses. Goods are placed in stock there and accumulated with the products of other plants until the necessary assortment is available before shipping to branch warehouses.

This permits us to take full advantage of through freight rates on carload shipments to all plants. It has also relieved our overcrowded plant warehouses and provided an adequate assortment at our branches. As a result, we have realized a net freight saving of over 15 per cent of our total annual freight bill—after allowing for all in-transit storage and handling charges.

Getting down to *Cases*

By LEO T. PARKER

Legal Consultant

TRANSPORTATION

Things You Can Do

YOU CAN limit your liability for loss or damage to goods transported interstate, if you file the limitation clause with the Interstate Commerce Commission. In *Royalty v. Southeastern*, 62 N. E. (2d) 200, Ohio, it was shown that a common carrier keeps on file in the office of the Interstate Commerce Commission a copy of its published "Rules and Regulations Tariff" in which is the rule that goods not exceeding 150 lb. in weight shall be valued not in excess of \$25. The rule also states: "Unless a greater sum be declared by the shipper and excess valuation charges be paid therefor according to tariff regulations, the value . . . is agreed not to exceed \$25 in value." A shipper failed to declare the value of her luggage as being in excess of \$25. It was lost by the carrier which she sued for \$160, the actual value of her lost luggage. The higher court held the carrier liable for only \$25 saying that since the carrier's rules are on file in the office of the Interstate Commission it was the legal duty of the shipper to inspect these rules. For comparison, see *Tennessee Coach Company v. Carter*, 182 S. W. (2d) 121.

YOU CAN obtain a permit to transport merchandise if additional service to the public is a "need," and benefit. For example, in *South Lines, Inc. v. Railroad Commission*, 208 S. W. (2d) 593, Texas, it was shown that a common carrier filed an application for a certificate. The Commission granted the application. Competitive carriers objected to allowance of the permit or certificate on the ground that the latter companies were operating in this territory and if additional service was needed they had sufficient money, credit and physical properties to enable them to furnish all additional services required. The higher court refused to revoke the certificates, saying that money is no object, but service to the public is most important.

For comparison, see *Kerrville Company, Inc. v. Continental System*, 208 S. W. (2d) 586. This court held that no common carrier is entitled to a monopoly, and the state statutes relating to certificates of convenience and necessity should not be construed as to create a monopoly.

Things You Can't Do

YOU CAN'T haul interstate for any purpose when an intrastate route is convenient and shorter. In *Atlantic Freight Lines, Inc. v. Pennsylvania Public Utility Commission*, 60 Atl. (2d)

589, Pennsylvania, it was shown that the intrastate rate for transportation of sugar between Philadelphia and Pittsburgh area was 49 cents per cwt. as against the rate of 35 cents charged by common carrier which used routes through the State of Maryland. The Public Service Commission of Pennsylvania sued the Atlantic Freight Lines on the specific charge that it transported approximately 90,000 lb. of sugar from Pennsylvania Sugar Refining Company, Philadelphia, Pennsylvania to consignees in Pennsylvania. The freight charges were at the rate of 35 cents per cwt. The higher court held that movement of the shipment across the state line was but a subterfuge to evade charging the intrastate rate of 49 cents per hundred. This court said: "The evidence establishes that the normal route between Philadelphia and the Pittsburgh area is intrastate and can be driven by truck in 10 hours whereas the interstate route involves driving time of about 18 hours."

YOU CAN'T avoid paying the full value of goods lost or destroyed in transit. In *Gore Products, Inc. v. Texas & N. O. R. Company*, 34 So. (2d) 418, Louisiana, it was shown that a wholesale drug company shipped four containers of medicine to a customer who was to pay fourteen hundred and forty dollars for the lot, or three hundred sixty dollars per container, freight included. During transportation the carrier's employees broke one container causing the loss of its entire contents. The carrier's legal counsel argued that it should be liable only for the cost of manufacturing the container of medicine. In subsequent litigation the higher court ordered the carrier to pay \$360, less \$3.52 the freight charges, to the wholesale drug company. This court said: "We do not think that the defendant's (carrier's) liability should be fixed at the amount required to reimburse plaintiff (shipper) merely for the cost of manufacturing one carboy of medicine . . . The liability of the carrier in such cases is for full actual loss of the property at the place of destination at the time delivery of the goods should have been made."

YOU CAN'T avoid theft of goods in transit on plea of "public enemy." For example, in *American Cigarette & Cigar Company, Inc. v. Garner*, 47 S. E. (2d) 856, North Carolina, it was shown that loss of goods in transit was due to theft by unknown persons. The higher court held that the loss was not attributable to the "public enemy" so as to relieve common carrier by motor truck from liability for the loss.

PACKAGING

Things You Can Do

YOU CAN prevent a competitor using any name likely to confuse the public. For example, in *Neuhoff, Inc. v. Neuhoff Packing Company*, 167 Fed. (2d) 459, it was shown that a stockholder named Neuhoff joined with other stockholders in the execution of a deed conveying to Neuhoff Packing Company the property, good will and right to use the corporate name of "Neuhoff Packing Company." Thereafter Neuhoff and others organized "Neuhoff, Incorporated." The higher court enjoined the latter corporation from doing business or having any dealings anywhere in Neuhoff Packing Company's trade territory under the name "Neuhoff Incorporated," and from using words "Neuhoff" and "Neuhoff's," singular or in combination with other words, in advertising or selling its products.

YOU CAN refuse to pay overtime under the Fair Labor Standards Act if you have special and legal contracts with employees. In *Blakeley v. Fresno Company, Inc.*, 208 S. W. (2d) 902, Texas, the testimony showed facts, as follows: One Blakeley was paid eighty-three and three-fourths cents per hour for a 40 hour week's work. After working several months Blakeley sued his employer for several hundred dollars alleging that he had not been paid overtime for 1,218 hours. The higher court refused to hold in favor of Blakeley because the testimony showed that at the time he was hired the employer gave him a time book and instructed him to not work more than 42 hours per week, or only 2 hours overtime in any one week.

Also, see *Kappler v. Republic Corporation, D. C.*, 151 Fed. (2d) 543. Here an employee was instructed or advised by his employer at the time of his employment he was to work no overtime without the consent of the manager. The higher court held that the employee could not recover for overtime unless the manager had knowledge that he was working overtime. And again see the important case of *Thompson v. Loring Company, D. C.*, 50 F. Supp. 1. Here an employee was responsible a full 24 hours for the care of his employer's equipment. Also, he was subject when off duty to call at any hour if anything went wrong. The higher court held that this employee could not receive overtime for the full 24 hours, but only for the hours actually worked over 40 hours each week.

Things You Can't Do

YOU CAN'T avoid liability under the Fair Labor Standards Act by fictitious contracts with employees. For example, in *McComb v. Sterling Storage Company*, 165 Fed. (2d) 265, it was shown that a corporation made written contracts with its employees which specified that the basic rate of pay "will be 40 cents per hour for the first 40 hours each week, and for time over 40 hours each week, you will receive for each hour of work not less than one and one-half times such basic rate." In subsequent suit testimony was given that the employees were paid \$175 and more a month without any change in the hourly contract rate for overtime. The higher court held the employment contracts invalid, and said: "This all leads to the inescapable conclusion that the hourly rate of the contract was not the real rate of pay . . . which an employee was entitled for regular hours and overtime hours of work."

YOU CAN'T avoid state taxation by obscure methods. In *Pet Corporation v. Division of Tax Appeals*, 59 Atl. (2d) 716, New Jersey, a state sued a corporation for \$16,666.79, representing assessments, interest and penalties from the sale of its products within the state. The corporation contended it was not liable because the merchandise was shipped to customers outside the state. Testimony showed that the T. & D. is composed of officers, stockholders or employees of the corporation. When the T. & D. received orders for merchandise from out of state customers, it would order the merchandise from the corporation. The merchandise would then be loaded on railroad cars and the bill of lading was delivered to the T. & D. which would endorse it and forward it with the sight draft to the customers. The higher court held that these sales of merchandise by the corporation to the T. & D. were within the state, and not exempt from excise state taxes. This court said that although the trading company made interstate shipments of the merchandise, the corporation's sales to the trading company were "intrastate" and therefore taxable under the state's taxation laws.

WAREHOUSING

Things You Can Do

YOU CAN limit your liability for goods lost or destroyed if: (a) the owner fairly agreed as to the limited valuation; and (b) the fact of actually greater value of the goods is unknown to the warehouseman. But a warehouseman cannot limit his liability if the testimony fails to show that the owner of the goods knowingly agreed to the limitation. In *French v. Bekins Moving & Storage Company*, 195 Pac. (2d) 968, Colorado, the testimony showed facts, as follows: One French employed the Bekins Moving and Storage Company to move and store her household goods. Later she brought suit for the value of two barrels of dishes lost by the warehouse company and for damage to other valuable furniture. During the trial the warehouse company proved that at the time of the taking of the goods for storage the truck driver handed to French a printed slip or van ticket containing blanks in which were penciled the details of removal, charges and other

information. Toward the bottom in printed five-point type were eight lines authorizing the handling of the goods "at a released valuation of ten cents per lb. per article" and limiting liability to that amount, with the additional sentence, "It is understood that irrespective of the released valuation shown in the preceding sentence, your liability for stored goods, . . . is limited to ten cents per lb. per article." French signed this slip or van ticket. No warehouse receipt was delivered to French until some six weeks after the goods were in storage. French refused to accept this receipt. The warehouse company contended that its liability should be limited to 10 cents per lb., as provided on the van ticket which French signed. French testified that she did not read the van ticket and that she assumed that she was merely signing a receipt for the goods which the truck driver loaded into the truck. The higher court held that the warehouse company must pay French the full value of the missing household goods. This court said: "In the case before us the warehouseman had knowledge that the contents of the barrels were of far greater value than the nominal valuation recited. There was no fair agreement between the parties as to the limited and nominal valuation declared, and the bailor (French) was not given an optional rate but was forced to accept the arbitrary valuation set by the warehouseman. This arbitrary limitation, therefore, was not binding on the bailor, and she should recover the full value of her lost goods."

Also, see *England v. Lyon Fireproof Storage Company*, 94 Cal. App. 562, 271 P. 532. Here a provision in the warehouse receipt limited the responsibility of the warehouseman for any package to \$25, unless the value was made known and an additional charge made by the warehouseman. The higher court held this limitation clause void as tending to relieve the warehouseman from the exercise of ordinary care.

YOU CAN reduce your liability for damage or loss of stored goods if (1) the damage or loss did not result from your negligence; (2) and the

owner of the goods agreed to the reduced liability after having an opportunity of paying greater storage rate and not having the warehouseman's liability reduced. For example, in *Brasch v. Sloan's Moving & Storage Company*, 176 S. W. (2d) 58, the higher court held that a provision declaring an agreed valuation which is known to be less than the value of the goods stored, as the measure of the warehouseman's obligation, is valid: (a) where accepted by fair agreement of the parties, and (b) where the bailor (owner of goods) receives thereby a reduced storage rate. This court said: "While a warehouseman may not avoid his liability for negligence, he may nevertheless stipulate with the owner as to what the extent of the latter's recovery shall be, where the rate charged the owner is based upon an agreed valuation."

Things You Can't Do

YOU CAN'T make a valid contract with the owner of stored goods that relieves or reduces your liability for loss or damage to stored goods caused by your negligence. See *Denver Public Warehouse Company v. Munger*, 77 P. 5; *Agricultural Insurance Company v. Constantine*, 58 N. E. (2d) 658, and *Parris v. Jaquith*, 70 Colo. 63. These higher courts held that any attempt in a warehouse receipt, or otherwise, to absolve the warehouseman from all liability, resulting from failure to exercise ordinary care, is invalid.

YOU CAN'T finally win a suit filed by a depositor, who claims you negligently lost or damaged his stored goods, until the higher court decides the issue. In *Wade v. Union Storage & Transfer Company*, 58 Atl. (2d) 493, District of Columbia, one Wade sued the Union Storage and Transfer Company for the value of 33 desks stored with the warehouse company and lost during storage. The lower court heard all testimony on the question of the warehouse company's negligence and dismissed the case. The higher court held that Wade had a right to a new trial, saying: "In our opinion the order or judgment dismissing the case without prejudice was clearly erroneous."

PUNCH CARDS

(Continued from Page 76)

Route and drop code numbers have been adopted. Each invoice carries this identification, with the first two digits representing the route, and three others assigned for the drops. This means that the packers or the superintendent in charge of loading doesn't have to frequently consult records to ascertain just which truck is to take a particular package. The route-drop code also expedites shifts in truck assignments if conditions indicate it is advantageous to combine the runs or parts of them on any particular day.

The use of code numbers for

brand and package unit identification (the code as well as the written descriptions are used on all stock picking copies of the invoices) has been helpful in warehouse operations because it provides a double check for the stock picker. They use the system in the Jersey City operation, as an example, to further identify wines bearing the same brand name but being of different type or vintage (such as Piper Heidsieck Brut 1941) and have found that the number of errors has been appreciably reduced because there is less chance of oversight in a quick reading where both the brand name and a

(Continued on Page 112)

People in Distribution

For our readers' convenience, items referring to one person only are arranged alphabetically according to the individuals' names. Company news or changes affecting more than one individual are arranged alphabetically by company names. Association items are similarly arranged.

John F. Ashe has been named Seattle sales manager of West Coast Fast Freight Co., Los Angeles, Calif.

Walter Bockstahler, former president of the Interstate Motor Freight System, has been elected vice president of Bridgeways, Inc.

Thomas P. Casey, district freight traffic manager for the Chicago, Milwaukee, St. Paul and Pacific Railroad Co., has retired after more than 55 years with the railroad.

Gilbert W. Chapman, vice president in charge of finance of the Yale & Towne Mfg. Co., has been elected a member of the company's board of directors.

A. H. Dill has been named Western district manager for the A. B. Farquhar Co., York, Penna., manufacturers of Iron Age farm equipment.

George V. Ehrhardt has been appointed sales manager in charge of national accounts for Sofia Brothers, storage, packing and shipping concern.

E. C. Hamilton will be head of the newly-combined service and sales department in the Air Conditioning and Refrigeration Division of Worthington Pump and Machinery Corp., Harrison, N. J.

Russell Inwood has been appointed vice president in charge of manufacturing and engineering of the Rapids-Standard Co., Inc., Grand Rapids, Mich., manufacturers of "Rapistan" materials handling equipment.

E. O. Jewell, general manager of the dock board of the Port of New Orleans, has resigned his post to become general manager of the Port of Norfolk. He is a former president of the American Assn. of Port Authorities.

Ronald A. Johnson has been appointed assistant to Paul Brainard, head of the newly-created engineering standards department at the Portland, Oregon, plant of the Hyster Co., manufacturers of industrial trucks and tractor tools.

Walter F. Johnson has been elected assistant treasurer for National Airlines by the company's board of directors. He will remain at the company's general offices in Miami.

George N. Lilygren has been elected vice president of Carrier Corp., Syracuse, N. Y., leading manufacturer of air conditioning and refrigeration equipment.

Don McKim, until recently executive secretary of the National Standard Parts

Assn., is the new general sales manager of F & B Mfg. Co., Chicago.

William J. Meehan has been named sales and service manager for Colonial Transfer and Storage Companies in Miami.

Harry J. Parks has been named new traffic manager of air cargo, mail, and express for Braniff International Airways.

Ernest J. Platfoot has been promoted to Eastern regional manager of the Packard Motor Car Co. Mr. Platfoot, formerly Detroit zone manager, will have his new headquarters in New York.

Leonard J. Werne has been named traffic manager of the National Lead Co. He recently completed 25 years' service with the company.

L. D. Yager has been appointed division manager of the Detroit sales office, Reynolds Metal Co.

The Cotter Merchandise Storage Co., Akron, Ohio, formerly the Cotter City View Storage Co., announces the appointment of the following officers: **Clarence H. Geib**, vice president and general manager; **Maude E. Cook**, secretary and treasurer; and **Charles H. Frazee**, assistant secretary.

Capital Airlines has elected two executives to the posts of vice president. They are **James B. Franklin**, former director of operations, and **James W. Austin**, former director of traffic and sales.

Electric Storage Battery Co., Philadelphia, announced the election of **Roland Whitehurst** to the post of vice president in charge of sales, and the election of **Carl F. Norberg** to the office of a director of the company. The changes follow the retirement of **Frank T. Kalas**, former director and vice president in charge of sales, after more than 49 years of service with the company.

Harborside Warehouse Co. has elected **Leo Fisher**, general manager since 1945, a vice president of the company and member of the board of directors. He replaces **Ray Schuster**, newly-appointed assistant to the president.

Mack Trucks, Inc., have announced the promotion of **T. J. Zeller** to factory manager of its largest plant, in Allentown, Penna. He succeeds **C. J. Moran**, who has been transferred to Mack's western sales headquarters in Los Angeles. **A. C. Schliwen** will assume Mr. Zeller's former duties as manager of the Plainfield, N. J., plant.

Rohm & Haas Co. announces the following new officers: President, **Otto Haas**; executive vice president, **Duncan Marriewether**; vice presidents, **C. E. Andrews**, **A. L. Blount**, **R. A. Connor**, **L. W. Covert**, **D. S. Frederick**, **E. L. Helwig**, and **L. Klein**; secretary, **S. C. Kelton**; treasurer, **W. T. McClintock**; assistant secretaries, **J. F. Bergin**, **P. J. Clarke**, and **William Kohler**, and assistant treasurers, **T. V. Monahan** and **George Schnabel**.

Sharon Steel Corp. has named **Fred W. Bennett**, manager of the Traffic Bureau of the Youngstown Chamber of Commerce, to the post of general traffic manager. He succeeds **Michael F. Dougherty**, dean of Youngstown district industrial traffic men, who will become special traffic representative for the firm, working in an advisory capacity.

American Standards Assn. has appointed **George Porter Paine** new director of promotion. He will continue to act as executive assistant to **Howard Cooley**, chairman of ASA's executive committee.

American Trucking Assns. held its 15th annual convention in Washington, October 15, with a record attendance of close to 3000. **H. D. Horton**, chairman of the board of Associated Transport, Inc., N. Y., was elected president. **Ed J. Buhner**, chairman of the board of Silver Fleet Motor Express, Louisville, Ky., became the association's board chairman. **Ted V. Rodgers**, head of Eschenbach and Rodgers, Scranton, Penna., was named honorary chairman of the board for life.

Other officers of the association are: **Henry E. English**, Sproule-Red Ball Lines, Inc., Dallas, first vice president; **C. J. Williams**, Hillside Transit Co., Milwaukee, second vice president; **D. L. Sutherland**, Middle Atlantic Transportation Co., New Britain, Conn., third vice president; **Fred B. Hufnagel, Jr.**, Sun Oil Co., Philadelphia, fourth vice president; **Charles P. Clark**, Columbia Terminals Co., St. Louis, treasurer, and **Chester G. Moore**, board chairman of the Central Motor Freight Assn., Chicago, secretary.

Connecticut Warehousemen's Assn. has elected the following new officers: **Robert K. Sullivan**, vice president and manager of the J. F. Sullivan Storage Co., President; **Paul Dahlgard**, first vice president; **Paul Manchester**, second vice president; **Harry I. Yates**, treasurer, and **F. O. Clauson**, secretary. Attorney **Paul J. Goldstein** continues as counsel for the association.

Lake Carriers Assn. has named two new members of the board. **Joseph G. Wood**, of the Wilson Transit Co., was elected to the post formerly occupied by his father, the late **Capt. Joseph S. Wood**. **H. J. Sullivan**, Chicago, vice president of the Gartland Steamship Co., succeeds his brother, the late **A. C. Sullivan**, who was Gartland president.

Metropolitan Traffic Assn. has elected the following new officers: **Robert A. Henderson**, Socony-Vacuum Oil Co., President; **Edward J. McCabe**, McLean Trucking Co., first vice president; **Joseph J. Donnelly**, New York, Ontario & Western Railway, second vice president; **Joseph A. Dowling**, Central Georgia Railway, secretary; **Vincent P. Golden**, Union Bag & Paper Co., treasurer, and **William H. Croissant**, Ethyl Specialties Corp., financial secretary.

Newark Traffic Club of Newark, N. J., has installed the following new officers: **Ralph A. Travisano**, traffic manager of Worthington Pump and Machinery Corp., Harrison, N. J., President; **William A. Kortenhaus**, president of Bilkeys Express Co., Newark, and operator of the Jersey Coast Freight Lines, Neptune, N. J., first vice president; **Sol V. Rettino**, director of traffic, Bristol-Myers Companies, Hillside, N. J., second vice president, and **Edward C. Kane**, district traffic manager, Interchemical Corp., Finishes Division, Elizabeth, treasurer.

New York State Warehousemen's Assn. has named the following new officers for the coming year: **J. Barclay Potts**, President; **Francis M. Gallagher**, general vice president; **George M. Clancy**, vice president, merchandise division; **Harold T. Dwyer**, vice president, household goods division, and **Edward J. Costich**, secretary-treasurer.

Southwest Warehouse and Transfermen's Assn. has elected **Otto J. Layer**, Merchants Transfer & Storage Co., San Antonio, president for the coming year. Elected first and second vice presidents were **Avery Rush**, Armstrong Transfer & Storage Co., Amarillo, and **Joe R. Herrin**, Herrin Transfer & Warehouse Co., Shreveport. State vice presidents are: **S. J. Beauchamp**, Terminal Van & Storage Co., Little Rock, Ark.; **Lawrence Milne**, Dalton Transfer & Storage Co., Albuquerque, N. M.; **Paul DeClouet**, Southwest Warehouse Co., Lafayette, La.; **D. L. Wigington**, OK Transfer & Storage Co., Lawton, Okla., and **W. N. McKinney**, American Transfer & Storage Co., Dallas, Tex.

Robert D. Burns, 50, traffic manager of Refined Syrups and Sugars, Yonkers; authority on the transportation of liquid sugar.

Frederick T. Heckman, 65, twenty-seven years traffic manager of the New York office of the American Express Co.

John Krausch, 77, co-founder of the Beck Cold Storage Co., Buffalo; formerly associated with the Arctic Ice and Cold Storage Co., on Sept. 17.

Alfred R. Kress, 54, general manager of the Terminal Railroad Assn., former manager of Colonial Salt Co., Akron, and past president of the Akron Traffic Study Club, in Mt. Lebanon, Penna., Oct. 10.

David T. Lamond, treasurer of Lee & Simmons, Inc., and member of the Traffic Club of New York.

M. H. McEwen, western traffic manager for the Chicago, Milwaukee, St. Paul & Pacific, in Seattle, Wash., Nov. 4.

John D. McGreal, traffic representative, Pennsy Railroad, member of Metropolitan Traffic Assn. of New York, in Baldwin, Long Island, Oct. 20.

William Morrissey, vice-president of the Morrissey Trucking Corp. of New York.

DISTRIBUTION BRIEFS

Borg-Warner International Corp. will henceforth handle all export activities of Warner Machine Products, Inc., Muncie, Ind. Export boxing will be handled by Borg-Warner at its Auburn, Ind., boxing plant.

Buda Co., Harvey, Ill., has acquired **W. F. Hebard & Co.**, Chicago, manufacturers of materials handling equipment including "shop mule" tractors and lift trucks.

Continental Can Co.'s new fibre drum plant at Tonawanda, N. Y., recently started production of "Leverpak" shipping drums, according to J. F. Price, general manager of Continental's Paper Converting Div.

Corpus Christi Warehouse and Storage Co., Corpus Christi, Texas, has been accepted for membership by the American Chain of Warehouses, Inc.

Design and Development Engineers, Inc., Chicago, has announced its acquisition of The Witte Co. and the election of **James G. Witte** as vice president in charge of sales.

Detrex Corp., manufacturers of cleaning compounds, announce the opening of a new Los Angeles office.

Fruehauf Trailer Co., Detroit, has announced the formation of Fruehauf Trailer Sales, Inc., for the purpose of financing truck-trailer installment purchase contracts for periods as long as five years.

Hinde and Dauch Paper Co., Richmond, Va., manufacturers of corrugated fibre shipping boxes and packing materials, has purchased land for the construction of a new corrugated box factory. Construction will begin shortly.

Hughes-Keenan Corp., manufacturers of Roustabout Cranes, announce the removal of their Mansfield, Ohio, plant to Delaware, Ohio.

Los Angeles-Seattle Motor Express Co. announces that as a result of their purchase of the British Columbia-Seattle Motor Express Co., California shippers may now for the first time send goods into Canada by truck without trans-shipment from Seattle. The firm has also established terminals at Blaine, Wash., and Vancouver, Canada.

Montgomery & Co., New York, machine tool accessory manufacturers, have entered the materials handling field with their production of the new Montgomery type "C" portable elevator.

National Assn. of Insurance Agents, under the new administration of **John C. Stott**, president, and **O. Shaw Johnson**, vice president, will lead a nationwide campaign to obtain better insurance protection for the trucking industry with particular emphasis on long haul risks.

Port of New York Authority has opened its third new trade promotion office in Cleveland. The branch will be headed by **Charles J. Hafner**, formerly of the Chicago office.

Rudie Wilhelm Warehouse Co., Portland, Ore., has just completed a new warehouse, bringing the firm's total warehouse space in Portland to 250,000 sq. ft.

Stevens Bros., household goods carriers, Saginaw, Mich., have just completed a two-fold expansion program. Their recently-completed purchase of a new warehouse in Saginaw has been followed by the acquisition on Oct. 5 of the Fireproof Storage Co. in Lansing.

Wald Transfer & Storage Co., Houston, Texas, recently constructed two warehouses. The first is to be devoted to merchandise storage. The second, a one-story building, is especially designed for the handling of pool cars. Construction of the buildings marks the entrance of the company into the merchandise warehousing field on a full-scale basis. **L. L. Schwacke** has joined the company as vice president and general manager of the new merchandise division.

Westinghouse Electric Corp. has opened a new warehouse in Buffalo, for the servicing of the company's customers in all of New York State outside of New York City. The new warehouse, which has 35,000 sq. ft. of floor space, was built at a cost of \$250,000, according to **Henry B. Vidal**, manager of the Westinghouse Buffalo District Office.

Wm. H. Ziegler Co., Inc. of Minneapolis, has set up a special engineering service to aid their customers in evaluating and planning their material handling needs.

OBITUARIES

Frank F. Powell, 73, president of the Coburn Warehouse, Indianapolis, for 30 years.

E. J. Sass, Secretary and operating executive of Fetter Storage Warehouse, Chicago, and former vice president, Midwest District, of Mayflower Warehousemen's Assn., on Oct. 28.

Robert B. Shearer, 70, vice president and director of C. S. Mersick & Co., wholesale building supply firm, and former president of the American Steel Warehouse Assn., at New Haven, Conn., on Oct. 16.

Arthur Clifford Sullivan, 67, president of the Gartland Steamship Co., senior partner of D. Sullivan & Co., Chicago, a director of the Lake Carriers Assn., and vice president of the Great Lakes Shipowners Assn., on Oct. 3.

William Thomas, 51, treasurer of the Thomas Bros. Fire Warehouses, Inc., Brooklyn, Oct. 13.

Capt. Joseph S. Wood, 74, president of the Wilson Transit Co., head of the Lake Carriers Assn., and director with Great Lakes Towing Co., and American Shipbuilding Co.

Transportation Facts

A NATIONAL Transport Terminal is contemplated for Chicago. This development, estimated to cost up to 465 million dollars, would require tax-free bond issues supported in part by Federal funds, in the opinion of Col. F. H. Miles, director of the executive section of the terminal. The terminal would resemble in organization the Port of New York Authority. (Vitkauskas)

August Maffry, vice president of Irving Trust Co., speaking at the Merchant Marine Conference at New York on Oct. 13, stated that one reason for the slump in shipping activity is a shortage of dollars on the part of European and Latin American countries, which has served to cut exports this year some three billion dollars below 1947. Also, the inflation has cut the value of the dollar and made purchases of U. S. commodities that much more expensive. (Vitkauskas)

Inflation has also struck at barge transportation. Costs, particularly in the performing of l.c.l. and carload barge service, have risen to the point where the Mississippi Valley Barge Line, last private carrier handling this freight on the big river, has decided to discontinue package freight. This step, similar to the one on the Great Lakes, contrasts with bulk carriage of freight which is having a heyday. While the private carriers are dropping package freight this is also true for the government carrier on the Mississippi, as represented by Inland Waterways Corp.

Coming Events

- Jan. 1-14, 1949—Annual Engineering Display, Society of Automotive Engineers, Book-Cadillac Hotel, Detroit.
- Jan. 10-14—Third National Materials Handling Exposition, Convention Hall, Philadelphia.
- Jan. 16-20—30th Annual Meeting, Associated Equipment Distributors, Stevens Hotel, Chicago.
- Jan. 20-21—American Trucking Assns., Inc., Executive Committee, Hotel Sherman, Chicago.
- Jan. 23-28—Annual Convention, National Furniture Warehousemen's Assn., Palm Beach Biltmore Hotel, Palm Beach.
- Feb. 6-7—15th Annual Meeting, Associated Warehouses, Inc., Hotel Mark Hopkins, San Francisco.
- Feb. 7-10—58th Annual Convention, American Warehousemen's Assn., (Joint meeting of both divisions: National Assn. of Refrigerated Warehouses and AWA Merchandise Div.), Fairmont Hotel, San Francisco.
- March 1-16—National Frozen Food Exposition, 71st Infantry Armory, 34th St. and Park Ave., New York.
- Apr. 10-14—17th Annual Convention, Mayflower Warehousemen's Assn., Buccaneer Hotel, Galveston, Texas.

While Northeast Airlines was asking for a freight rate increase averaging six cents a ton mile, United Air Lines in a tariff filed with the CAB lowered air freight rates on 15 specific commodities from the West to Middle West and Eastern points. These include various paper, rubber, food and leather products.

A nationwide plan to interchange truck trailers was ratified by the Regular Common Carrier Conference of the ATA. Interchange will permit the shipper to load freight in a trailer with the assurance that no transfers en route will occur where more than one line is involved. Effectiveness will depend on standardization of equipment and modification or removal of state barriers, including ports of entry and other restrictions of a petty but costly character.

In this connection, the Bureau of Motor Carriers, I. C. C., is holding hearings on vehicle leasing and interchange practices. In their survey of motor carriers, a large number of intercity operators held leasing of vehicles to be important to their business. In the leasing field, there is no uniformity in practices, according to the Bureau. The ATA and other groups including the Household Goods Carriers Conference of the ATA (which is acting independently) will present evidence to support the view that individual carriers should be permitted to depart from any leasing regulations; that any person or carrier should not be prevented from engaging in the same kind of unregulated business; that responsibility in leasing must be fixed on a particular carrier; that leases be

in writing; and that vehicles with drivers be furnished to authorized carriers by means of a lease or agreement without the lessor becoming a carrier subject to ICC regulation. The ICC appears to be in agreement with the belief that there is lax control over truck hiring. Another objection by W. Y. Blanning of the ICC is that the practice of hiring equipment for a percentage of revenue renders motor carrier statistics valueless. More important, there are believed to be abuses involving "gifts" to clerks and other employes for advance information on the movement of traffic.

The National Industrial Traffic League, made up of shippers and receivers, has asked the ICC to deny the railroads' request for an eight percent increase in freight rates until all interested parties are heard in a public hearing. This increase, while being specifically acted upon, was actually enlarged by a further petition on October 12 making the proposed increase 13 percent. The original eight percent request was made to meet pay rises; the modification was requested to cover new wage costs and increased prices of fuel and material. These actions apparently presuppose that, if the non-operating unions as well as some operating brotherhoods refuse to accept a proposed ten cents an hour increase, a further rate adjustment may be deemed necessary.

The Illinois Institute of Technology will be the seat of a planned laboratory for research and testing staffs of the Mechanical and Engineering divisions and the Container Bureau of the AAR.

Books and Catalogues

1949 MODERN PACKAGING ENCYCLOPEDIA, 990-page one-volume encyclopedia, offers a comprehensive survey of all phases of packaging. Attractively bound and illustrated, the book reveals evidence of careful research and organization. Authors include well-known packaging experts and executives. Arranged in nine major parts which cover in sequence each step in successful packaging, the book includes sections on packaging in specialized fields, planning fundamentals, materials of packaging, packaging forms, machinery and equipment, shipping containers, and packaging displays.

Of particular interest to those seeking answers to specific problems will be the new feature containing illustrated discussions by recognized packaging experts on the packing requirements and problems peculiar to 17 groups of products. A complete buyer's directory and an index of industries provide a useful service in the marketing field.

The encyclopedia lives up to its publisher's claim that it is "an integrated unit dealing with the functions, forms, uses and sources" of packaging. Breskin Publishing Co., 122 East 42nd St., New York 17, N. Y. \$6.50 in the United States, \$9.00 in Canada.

AIR CARGOES, 44-page booklet giving requirements of packing for air shipment, what can be shipped by air, container regulations, official classification, required markings for containers, and list of air lines and global areas they serve. Also lists aviation publications and organizations. A valuable guide for those who ship by air. J. D. Malcolmson, Robert Gair Co., Inc., 155 E. 44th St., New York 17, N. Y.

SOUTHWEST MERCHANDISE WAREHOUSE GUIDE, No. 3, 58-page book designed to aid warehousemen in establishing their own rates. Southwest Warehouse & Transfermen's Assn., 709 Commercial Standard Bldg., Fort Worth 2, Texas. \$5.00.

MOTOR CARRIER FREIGHT CLAIM RULE BOOK, REVISED EDITION, including all changes approved by ATA's Freight Claim Council. The book covers Freight Claim Rules, regulations governing inspection of freight before and after delivery, principles and practices, and constitution and by-laws of the Council. American Trucking Assn., Inc., 1424 16th St., N. W., Washington 6, D. C.

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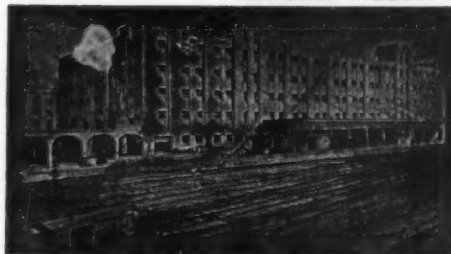
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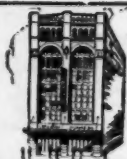
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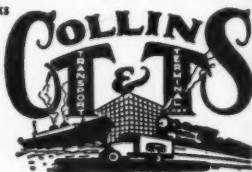


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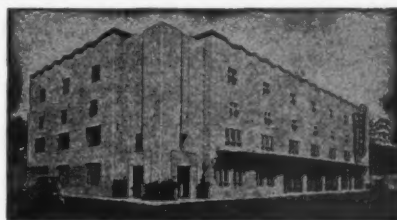
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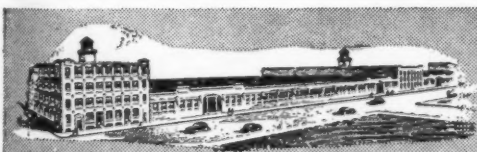
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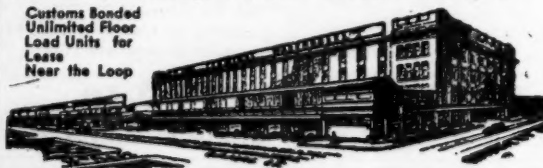
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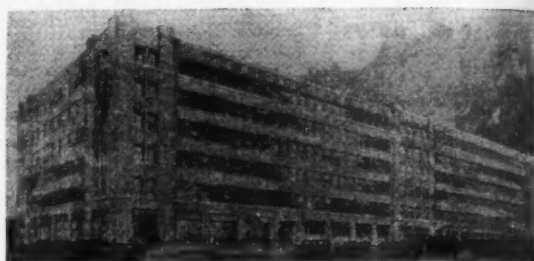
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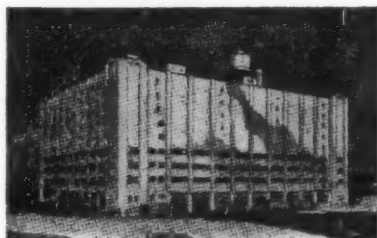
The article by Charles H. Sevin on physical distribution costs which appeared in the December issue of DISTRIBUTION AGE is continued in the January issue. Delivery costs are made the subject of a searching analysis.

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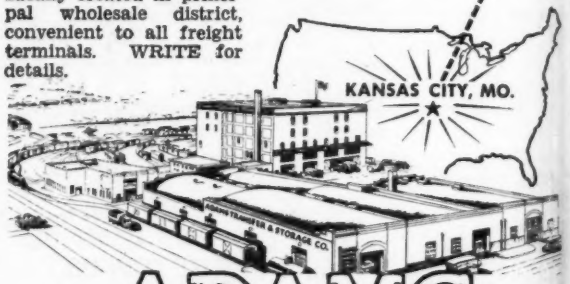


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3

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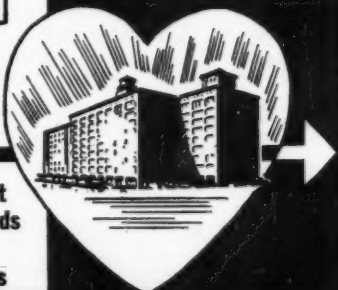
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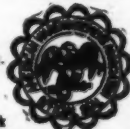
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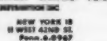
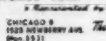


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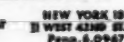
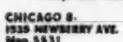
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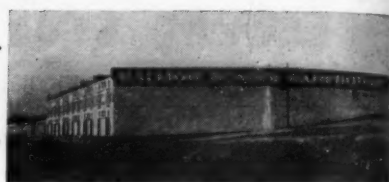
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 PRIVATE SIDING NYC RAILROAD
 FRENCH & WINTER STREETS CLEVELAND 13, OHIO

CLEVELAND, OHIO

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A. C. W.

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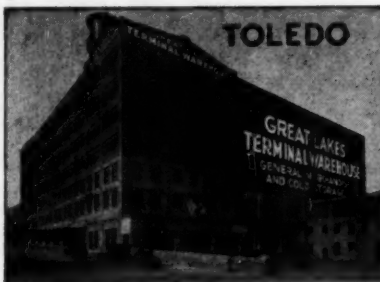
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Edwin C. Hastings will continue his discussion of the use of
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Complete Warehousing Service for Storage and Distribution of General Merchandise.

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Buildings are thoroughly staffed and equipped for the safe storage and fast, efficient, economical handling of all kinds of merchandise. "Terminal"

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Connections with both the Pennsylvania Railroad and Reading Company. Completely equipped pool car department. Store-door delivery. Convenient to Delaware River piers. Write for particulars.

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Lowest Content Insurance Rate
Fireproof Storage of Household Goods, Autos & Merchandise. State and Customs Bonded. Private Trackage—T. & P. and So. Pac. Rys. Pool Car Distribution—Motor Truck Service.
Members—NFWA—SWTA—Agent for AVL

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NEW YORK 10 11 WEST 42ND ST. Penn. 6-0967

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In Fort Worth It's Binyon-O'Keefe

MERCHANDISE STORING—POOL CAR DISTRIBUTION

Our modern Centrally located warehouse is completely equipped to serve you with over 200,000 sq. ft. of merchandise and household storage space.

MOVING—STORAGE—PACKING—SHIPPING

BINYON-O'KEEFE STORAGE CO.

800 Calhoun St., Fort Worth 1

Associated with Distribution Service, Inc.

FORT WORTH, TEXAS

Storage, Cartage, Pool Car Distribution



O. K. Warehouse Co., Inc.

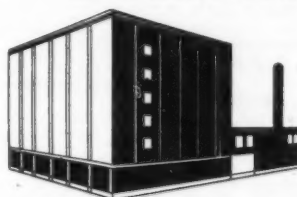
255 W. 15th St., Fort Worth 1, Tex.

Agents, North American Van Lines, Inc.



for the best
in cold storage

in GALVESTON, TEXAS



store
with

GALVESTON ICE & COLD STORAGE CO.

109 20th Street

Galveston, Texas

General Manager: O. F. Roeyer

Telephone—9393



THE CITY ICE & FUEL CO.

Cold Storage Division

33 SOUTH CLARK STREET
CHICAGO 3, ILLINOIS

HOUSTON, TEXAS

Member of A. W. A. — S. W. & T. A.

BUFFALO WAREHOUSE COMPANY

No. 1 MAIN STREET HOUSTON 2, TEXAS

Located in the heart of the jobbing district

MERCHANDISE STORAGE—POOL CAR DISTRIBUTION

Lowest Insurance Rates Automatic Sprinkler Watchman

HOUSTON, TEXAS

POOL CARS
OUR
SPECIALTY

FEDERAL WAREHOUSE CO.

2001 NANCE STREET
HOUSTON 2

HOUSTON, TEXAS

New Location—Improved Facilities

BETTER WAREHOUSING IN HOUSTON

Our new warehouse is 800 feet long by 250 feet wide with car spot on the Mo. Pac. R. R. for 20 cars at one time. Plenty of truck dock space with wide area to maneuver trucks and trailers.

This modern one-story property with high ceilings and unlimited floor load capacity is fully equipped with modern materials handling apparatus.

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General Storage Cold Storage U. S. Customs Bonded
A. D. T. Service Pool Car Distribution
Office Space Display Space Parking Space
Lowest Insurance Rate
New York Representative Chicago Representative
Phone Plaza 3-1235 Phone Harrison 3688

HOUSTON, TEXAS

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1117 VINE STREET, HOUSTON 2
Merchandise and Household Goods Storage
Pool Car Distribution
Sprinklered—A.D.T. Watchmen
Shipside and Uptown Warehouses
Operators—Houston Division
Lone Star Package Car Co.
Member of N. F. W. A. — State and Local Assn's.

HOUSTON, TEXAS

TEXAS WAREHOUSE COMPANY
Established 1901
Forty-Seven Years
Under Same Continuous Management
MERCHANDISE EXCLUSIVELY
Pool Car Distribution Sprinklered Throughout
A.D.T. Supervised Service

HOUSTON, TEXAS

UNION Transfer & Storage Co.
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Forwarding and Distributing
MERCHANDISE STORAGE
Warehouses Sprinklered Throughout
Supervised by A. D. T. Service.
SERVICE THAT COUNTS

HOUSTON, TEXAS

UNIVERSAL TERMINAL WAREHOUSE CO.
1002-1008 Washington Ave., Houston
Merchandise Storage—Pool Car Distribution—Drayage Service
A.D.T. Central Station Automatic Supervisory
Sprinkler, Waterflow, and Fire Alarm Service
Watchmen, U. S. Customs Bonded, Office Space
Represented in all principal cities by
UNIVERSAL CARLOADING & DISTRIBUTING COMPANY
Division of
UNITED STATES FREIGHT CO.
Members State and Local Associations

HOUSTON, TEXAS

BENJ. S. HURWITZ, Pres.
WESTHEIMER
Transfer and Storage Co., Inc.
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Since 1883
Merchandise & Household Goods Storage—Pool Car Distribution—
Lift Van Service—20 car lengths of truckage.
Fireproof Warehouses—A.D.T. Automatic Fire and Burglary Protection
Agents for Allied Van Lines, Inc. Members N.F.W.A. State and Local Assn.

SAN ANTONIO, TEXAS

MERCHANTS
TRANSFER & STORAGE CO.
Merchants & Transfer Bldg., San Antonio 6
Complete Storage and Distribution Service
Over 50 years of satisfactory service
Member of A.F.A.—N.F.W.A.—S.F.A.

SAN ANTONIO, TEXAS

Agent for Allied Van Lines, Inc.
Scobey Fireproof Storage Co.
311-339 North Medina St., San Antonio 7
HOUSEHOLD — MER-
CHANDISE — COLD
STORAGE — CARTAGE
DISTRIBUTION
INSURANCE RATE — 10c
Member of 4 Leading Associations

SAN ANTONIO, TEXAS

SOUTHERN TRANSFER & STORAGE CO.
P. O. BOX 4097, STA. A, SAN ANTONIO 7
Specialists in Merchandise Distribution
FIREPROOF CONSTRUCTION
BONDED STORAGE
Represented by
CHICAGO 9 1222 W. WABASH AVE. NEW YORK 10 11 WEST 42ND ST.
NEW YORK 10 11 WEST 42ND ST.
NEW YORK 10 11 WEST 42ND ST.

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IRA P. HILDEBRAND, Owner & Manager
HILDEBRAND WAREHOUSE COMPANY
Bonded under the Laws of Texas
General Storage and Distribution from the Center of
East Texas. Specializing in Pool Car Distribution
and Merchandise Warehousing

WICHITA FALLS, TEXAS

POOL CAR DISTRIBUTION
Since 1920
TARRY WAREHOUSE & STORAGE CO.
Wichita Falls, Texas

OGDEN, UTAH

WESTERN GATEWAY STORAGE CO.
GENERAL WAREHOUSING
POOL CAR DISTRIBUTION
MERCHANDISE AND COLD STORAGE

SALT LAKE CITY, UTAH

CENTRAL WAREHOUSE
520 West 2nd South St., Salt Lake City 1
Fireproof Sprinklered
Merchandise Storage
Pool Car Distribution Office Facilities
Member A. W. A.

SALT LAKE CITY, UTAH

Merchandise Storage and Distribution
Over 1,000,000 cubic feet reinforced concrete Sprinklered Space
Insurance Rate 11 Cents
CORNWALL WAREHOUSE CO.
353 W. 2d South St., Salt Lake City 1
Represented by
ALLIED DISTRIBUTION, INC., and
DISTRIBUTION SERVICE, INC.
New York-Chicago-San Francisco

SALT LAKE CITY, UTAH

Merchandise Storage—Pool Car Distribution
KEYSER MOVING AND STORAGE CO.
320 West 2nd South, Salt Lake City 1
Established 1910
72,000 sq. ft. space. Reinforced concrete and brick. Central location. Systematic delivery service. A. D. T. automatic burglar and fire protection. Office and deck space. Member AWA-DVL-UWA-AWI

SALT LAKE CITY, UTAH

"Serving the Intermountain West"
SECURITY STORAGE & COMMISSION CO. Inc.
230 So. 4th West St., Salt Lake City (1)
Warehousing-Distribution service since 1906
Represented by American Chain of Warehouses
New York (17) Chicago (4)
250 Park Avenue 25 W. Jackson Blvd.
Member of American Warehousemen Association

and Firms are Arranged Alphabetically

NORFOLK, VA.



Household • Automobile Storage • Merchandise
NEW-BELL STORAGE CORPORATION
 22nd St. & Monticello Ave.
 NORFOLK 16, VIRGINIA
 MODERN SPRINKLER EQUIPPED WAREHOUSE
 50,000 SQUARE FEET PRIVATE RAIL SIDING
 Lowest Insurance Rate in Norfolk. Pool Car Distribution
 WE SPECIALIZE IN MERCHANDISE STORAGE
 AND DISTRIBUTION
 AGENTS AERO MAYFLOWER TRANSIT COMPANY
 Member M.W.A. & A.T.A.

NORFOLK, VA.

STORE and DISTRIBUTE IN THE PROSPEROUS TIDEWATER AREA THRU PRUDENTIAL

HOUSEHOLD GOODS MOVED, PACKED, SHIPPED
 POOL CAR TRANSFER TRUCKING SERVICE
 LARGE FIREPROOF WAREHOUSE
 OPEN YARD STORAGE AVAILABLE
 LOCATED ON N. & W. SIDING

PRUDENTIAL STORAGE and WAREHOUSE COMPANY

Bilings St. at N. & W. Ry.

P. O. Drawer 1859 — Telephone 22481 or 54008

NORFOLK, VA.

Fine Warehousing Since 1914

Security Storage and Van Co.

500-530 FRONT STREET

COLLECTIONS • POOL CARS • DISTRIBUTION
 MOTOR VAN AND LIFT VAN SERVICE
 Member—Nat'l. F.W.A.—Allied Van Lines

NORFOLK, VA.

Established 1892

SOUTHGATE STORAGE COMPANY, Inc.

239 Tawell St., Norfolk 10



MEMBER:
 A.W.A.
 U.S.A. & G.

For economical storage and distribution
 you will want to know more about our
 individualized services. Our fireproof
 warehouses are in the Southgate Terminal,
 on the waterfront and in the center of
 Norfolk's wholesale district. Served by
 all rail, water and motor lines.

Write for Booklet—"7 POINT DISTRIBUTION"

RICHMOND, VA.

70 Years of Uninterrupted and Expert Service

BROOKS TRANSFER and STORAGE CO., Inc.

1224 W. Broad Street, Richmond 3, Va.

Three Fireproof Storage Warehouses—810,000 Cubic Feet Floor Space—
 Automatic Sprinkler System—Low Insurance Rates—Careful Attention
 to Storage—Packing and Shipping of Household Goods—Private Rail-
 road Siding—Pool Car Distribution—Motor Van Service to All States—
 Freight Truck Line. Member of N. F. W. A. — A. W. A.

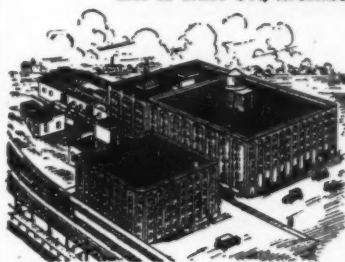
Agents: United Van Lines, Inc. serving 48 States and Canada.

RICHMOND, VA.

Established 1908

VIRGINIA BONDED WAREHOUSE CORPORATION

1700 E. CARY ST., RICHMOND 3, VA.



160,000 SQ. FT.
 SPACE
 BUILDINGS
 SPRINKLERED
 U. S. BONDED
 & PUBLIC
 WAREHOUSES
 MERCHANDISE
 STORAGE &
 DISTRIBUTION
 INSURANCE
 RATES
 25c PER \$100
 PER YEAR

ROANOKE, VA.

H. L. LAWSON & SON



Finance and Storage
 Pool Car Distributors
 General Merchandise Storage
 421-25 EAST CAMPBELL AVE.
 ROANOKE 7, VIRGINIA

Represented by
 Associated Warehouses, Inc., Chicago and New York

ROANOKE, VA.

ROANOKE PUBLIC WAREHOUSE

369 W. Salem Ave., W., Roanoke 5

Capacity 500 Cars

Private Railroad Siding



Automatic Sprinkler

Accurate Accounting

We make a specialty of Storage and Pool Car Distribution
 for Agents, Brokers and General Merchandise Houses.
 Member of American Chain of Warehouses

SEATTLE, WASH.

EYRES TRANSFER & WAREHOUSE CO.

2203 First Ave., So., Seattle 4

Cartage — Distribution — Storage
 (Highest financial rating; new fireproof; A.D.T. sprinklered
 buildings; lowest insurance rate (18.2c); modern equipment.)

SEATTLE, WASH.

LLOYD

Transfer Co. Inc.

POOL CAR DISTRIBUTION

MACHINERY MOVING, RIGGING AND HAULING

U. S. Customs Bonded

2400 Occidental Avenue

Seattle 4, Washington

SEATTLE, WASH.

J. R. GOODFELLOW, Pres.

OLYMPIC WAREHOUSE & COLD STORAGE CO.

MERCHANDISE STORAGE & DISTRIBUTION

1203 Western Avenue Seattle 1, Wash.
 Cold Storage—Dry Storage—Rentals—Pool Car Distribution—Office Rentals
 Fireproof, brick const.; Sprinkler system; Insurance rate: 12.8c.
 connects with all rail lines.

Bonded U. S. Customs; State License No. 2
 Member of A.W.A. (C.S.) Wash. State Whsmas. Assn.

SEATTLE, WASH.

Seattle's One-Stop Warehousing Service!



UNITED
 Merchandise Storage & Distri-
 bution—U. S. Customs—See Stores • Seattle's Exclusive Furniture Repossitory

SEATTLE TERMINALS, Inc.

Executive Offices: 1017 E. 40th St., Seattle 5

R. G. Culbertson, President

Wm. T. Laube, Jr., Secretary

The theme of the January issue is Trends and Previews.
 This issue will contain, among other articles, a discussion of
 the significance of the basing point decision by G. Lloyd
 Wilson.

SEATTLE, WASH.

Lloyd X. Coder, Pres. Ellis L. Coder, Secy.-Treas.

SYSTEM Transfer & Storage Co.

Established 1919

2601-11 Second Avenue, Seattle 1

Complete Drayage, Storage and
Distribution Service

"System Service Satisfies"

Member—A.W.A.—W.S.W.A.—S.T.O.A.

SEATTLE, WASH.

**TAYLOR-EDWARDS
WAREHOUSE & TRANSFER CO., INC.**

1020 Fourth Avenue South

Seattle 4

WAREHOUSING • DISTRIBUTION • TRUCKING

Represented By
DISTRIBUTION SERVICE, INC.
New York—Chicago—San Francisco

SPOKANE, WASH.

F. C. HINTON, Owner

RIVERSIDE WAREHOUSES, INC.

E. 41 Gray Avenue, Spokane, 8

Telephone, Office and Stenographic Service

Specialize in serving food and related industries; pool car distribution; 44 truck and
tractors with semi-trailers. New 70,000 ft. modern warehouse, equipped with (asked
tractors).

Represented By
DISTRIBUTION SERVICE, INC.
New York—Chicago—San Francisco

SPOKANE, WASH.

**TAYLOR-EDWARDS
WAREHOUSE & TRANSFER CO., INC.**

310 W. Pacific Avenue

Spokane 8

WAREHOUSING • DISTRIBUTION • TRUCKING

Represented By
DISTRIBUTION SERVICE, INC.
New York—Chicago—San Francisco

TACOMA, WASH.

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WAREHOUSE & TRANSFER CO., INC.**

401 East 21st St.

Tacoma 2

WAREHOUSING • DISTRIBUTION • TRUCKING

Represented By
DISTRIBUTION SERVICE, INC.
New York—Chicago—San Francisco

HUNTINGTON, W. VA.

Every facility for you and your patrons' convenience to secure your share of this Five Hundred Million Dollar market is available through

THE W. J. MAIER STORAGE COMPANY
1100 Second Ave., Huntington 10

GREEN BAY, WIS.

ESTABLISHED 1903

LEIGHT TRANSFER & STORAGE CO.

123 SO. BROADWAY • GREEN BAY • WIS.



Merchandise Storage
Pool Car Distribution
Transit Storage
Household Goods Storage
Heated—Unheated—Yard
Storage
Waterfront Facilities
Stevedore Services

U. S. Customs, State and
Public Bonded
40 Car Track Capacity
Modern Handling Equipment
Private Siding on C&NW,
CHS&P, GB&W Lines
Reciprocal Switching all
lines

Complete local and over-the-road truck services with 70
units of all types of equipment, including low-bed
trailers, winches and cranes.

AERO-MAYFLOWER MOVING AND STORAGE
New York Office:

Interlake Terminals, Inc., 271 Madison Ave. (16)

PUNCH CARDS

(Continued from Page 79)

descriptive code number are uniformly used.

According to Norman Feldman, Federal has found the punched-card procedure convenient for preparing purchase analyses. These include preparation of the state tax purchase schedule, the monthly vendors' report by brand and classification, and the monthly recap of purchases for the comptroller.

Purely as an invoicing by-product, Federal uses the sales summary cards in computing salesmen's commissions. The company pays as a flat rate of net sales, plus special bonuses for certain brands. The bonus commission figures (they are pre-punched into the unit-of-stock cards to which they apply) are automatically accumulated for each invoice, and they are punched, together with the total invoice sales amounts, into the summary cards. Each week the cards which represent the orders billed are combined with summary

cards prepared from memos for returns or other credits; sorted by salesman, then tabulated.

The economy factors involved in Federal's use of the punched-card procedure are being made the subject of extensive study by the accounting control-minded Norman Feldman, but he expresses himself as loath to discuss their control operations from that standpoint, since the factors of additional control material that is made available and the tremendous time savings have greater (although perhaps less tangible) economic significance than savings in clerical salaries.

Clerical workers in the tabulating department are paid the same or only slightly more than others of the clerical staff and, while a lesser number produce far more controls, Federal executives have looked to means of employing the freed staff for activities that will lead in the direction of more business rather than to consider, at this time, possible economies through having a smaller clerical staff.



International Harvester's Motor Truck Division has set up a complete plant for the rebuilding of its motor truck units in Richmond, Calif. The plant can recondition up to 40 truck engines plus cranks and other parts in each eight hour shift. Mass production line principles are applied in this central depot to capitalize on large-scale economics. One technique adopted is the continuous backlog of reconditioned parts, ready for installation; thus a reconditioned engine will not necessarily be made up of its original parts. This is important since assembly work heretofore might have been delayed because of the extra time needed to recondition a crankshaft or other part.

Parts which show signs of failure are junked. This procedure is aided by the Magnaflex, which detects minute flaws. An iron oxide solution is sprayed over the shaft and a magnetic current passed through it. If small cracks are present, they show up as easily visible colored veins.

and Firms are Arranged Alphabetically

MADISON, WIS.

LOW INSURANCE RATE

CENTRAL STORAGE AND WAREHOUSE COMPANY

COLD STORAGE
DRY STORAGE
FREEZER STORAGE 612 W. Main St., Madison 3

MILWAUKEE, WIS.

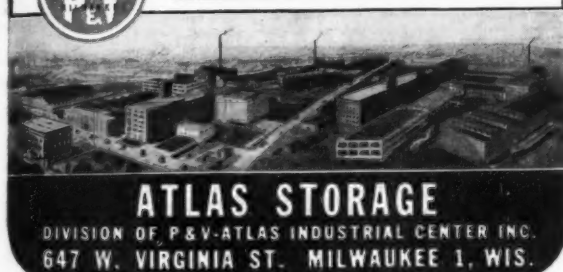
Service Minded

"Store American" For Economical Efficient Experienced Complete Merchandise Warehousing
SPECIALISTS IN POOL CAR DISTRIBUTION
AMERICAN WAREHOUSE CO.
General Office: 525 East Chicago St. Milw. Whse. Ass'n Wis. Whse. Ass'n House No. 2 302 North Jackson St.
Private Siding—Chicago & North Western Ry. 3rd Ward District

MILWAUKEE, WIS.

COMPLETE WAREHOUSING AND DISTRIBUTION SERVICE

GENERAL AND U. S. CUSTOMS BONDED STORAGE



ATLAS STORAGE

DIVISION OF P&V-ATLAS INDUSTRIAL CENTER INC.
647 W. VIRGINIA ST. MILWAUKEE 1, WIS.

W
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C
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LARGEST AND MOST MODERN

MILWAUKEE, WIS.



LINCOLN

WAREHOUSE COMPANY
MERCHANDISE WAREHOUSING
AND DISTRIBUTION

LOCATED IN HEART OF BUSINESS DISTRICT
Offices: 206 W. Highland Ave., Milwaukee 3
Member of A.W.A.—W.W.A.—M.W.A.

MILWAUKEE, WIS.

NATIONAL TERMINALS CORPORATION

954 So. Water Street, Milwaukee 4 Tel. Mitchell 5644
Milwaukee's most modern and best located Waterfront Warehouse.
Automobile storage. Warehousing on unit basis for spot stocks. Storage
"in transit". Pool car distribution. Customs Bonded.
Member of A. W. A. & W. W. A.
New York Office: 55 W. 42nd St., Phone LACKAWANNA 4-0663, New York 18, N. Y.

MILWAUKEE, WIS.

"Milwaukee's Finest"

National Warehouse Corporation

— STATE BONDED —

EVERY CONCEIVABLE WAREHOUSE &
DISTRIBUTION SERVICE AFFORDED



A.D.T. Service

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Milwaukee 4
C. & N.W.R.R. Siding



MILWAUKEE, WIS.

—Phone Marquette 7091

TERMINAL STORAGE CO.

100-112 W. Seeboth St.
Milwaukee 4, Wisconsin

Cooler, Freezer and General Merchandising Storage
Deep Water Dock, Private Siding
on C.M.St.P. & P. R.R.

SHEBOYGAN, WIS.



SHEBOYGAN WAREHOUSE & FORWARDING CO.

A Merchants & Manufacturers Warehouse

11th and Illinois Ave. Sheboygan, Wis.
Member of A.W.A.—May. W.A.—Wis. W.A.



CANADA

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M. A. RAWLINSON, Pres. & Gen. Mgr.

M. RAWLINSON, Ltd.

Established 1885 610 Yonge St., Toronto 5, Can.
Seven Buildings to Meet All Requirements for Modern Storage
and Distribution
Customs Bonded. Pool Car Distribution. Household Goods
Moved, Packed, Shipped and Stored.
Members of CanWA—NFWA—SAIFR—FWEA—TCFW—ALLIED VAN LINES

MONTREAL, QUE.



St. Lawrence Warehouse Inc.

1-VAN HORNE AVENUE, MONTREAL, CANADA

200,000 SQ. FT. OF MODERN FIREPROOF SPACE
LOCATED IN THE EXACT CENTER OF THE CITY
OF MONTREAL

Canadian Customs Bond. Private Siding—4 Car
Capacity—Free Switching—All Railroad Connections

New York Representative: Frank J. Tully
277 Broadway, New York 7 Phone WORTH 2-9423

MONTREAL, QUEBEC

Established 1908
W. G. KENWOOD,
Pres. & Man. Dir.

Westmount Transfer & Storage Ltd.

205 Olivier Ave., Westmount, P. Q.
LOCAL AND LONG DISTANCE MOVERS
Private Room System for Storage
CRATING, PACKING and SHIPPING
Charges Collected and Promptly Remitted
Member: N. F. W. A., Can. W. A.





All of our Pallets are designed and constructed with the same advanced principals and thoroughness you expect of all your materials handling equipment. Our basic specifications call for sound hardwoods, pre-bored slats, cement-coated drive screws and annular ring nails and other features assuring you of Pallets able to stand up under heavy usage.

Special Pallets built to individual requirements



Mowbray & Robinson Lumber Co.
CINCINNATI 14, OHIO
P. O. BOX 60—STATION ANNEX

CHECK THESE POINTS
when buying
GUMMED TAPE

1. The name **SAFETEX** on the core identifies this high quality gummed (northern) kraft paper sealing tape.
2. The Pull-Tab opener in every roll saves time and tape.
3. The **SAFETEX** glue surface with its herringbone design insures speed and tenacity.

SAFETEX TAPE PRODUCTS
Regular gummed sealing tape
Stay Tape
Veneer Tape
Solvent water-resistant tape

Write for name of nearest
Paper Merchant Distributor.
CENTRAL PAPER COMPANY
Menasha, Wisconsin

SAFETEX GUMMED TAPE
PULL-TAB OPENER
SAVES TIME AND TAPE

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"we can
take it!"

IF YOUR COMMODITIES clear through the **Port of New York**, we'd like your business. Port Newark is ideally situated to serve the metropolitan New York area—a perfect springboard to hungry markets abroad.

"Newark Tidewater" is one of the great terminals facing the Atlantic. It offers every modern facility for the safe, efficient, economical storage and distribution of your products, bulk or packaged. Here are ample wharfage space and equipment for working **big, ocean-going freighters**. Highly trained personnel, up-to-the-minute methods, assure fast, painstaking handling and shipping. Insurance rates are low.

Bring us your distributional and storage problems in this great industrial and commercial center. You will find our facilities and services comprehensive and helpful.

NEWARK TIDEWATER TERMINAL, INC.

PORT STREET, NEWARK 5, N. J.

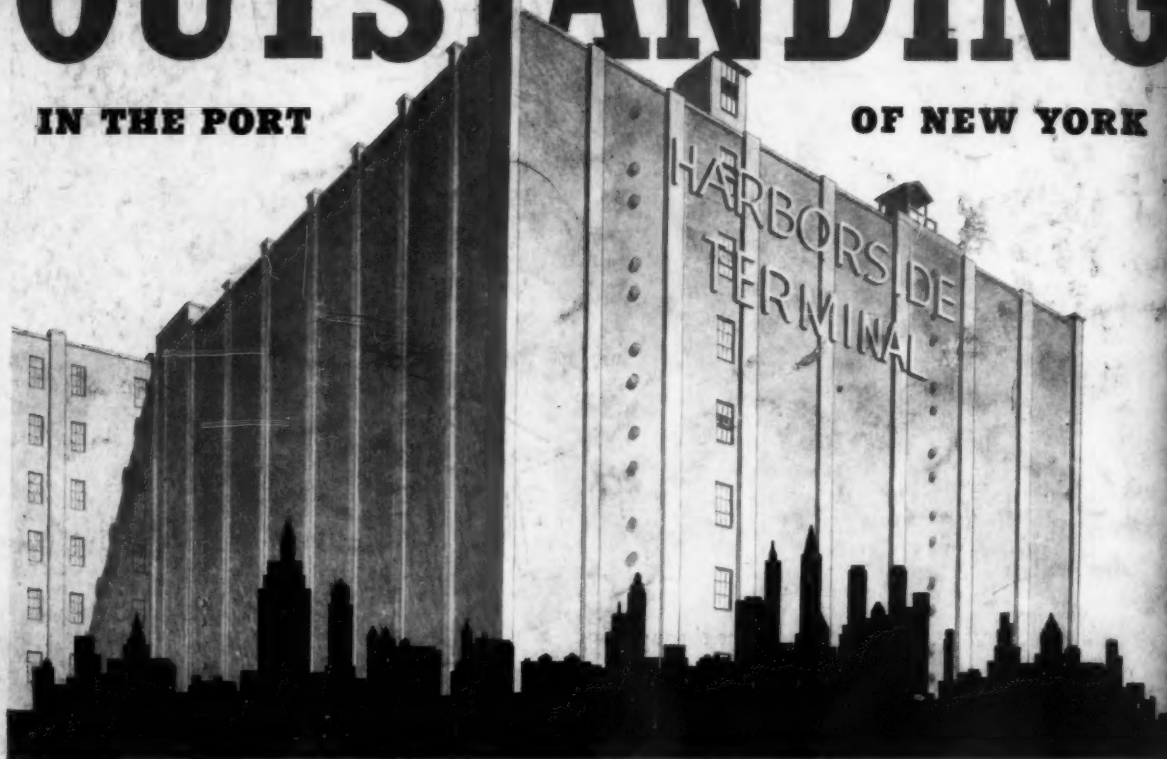
J. A. LEHMAN, Vice Pres. & Gen. Mgr.



OUTSTANDING

IN THE PORT

OF NEW YORK



New York stands for bigness—big things done in a big way. Even in Greater Gotham, however, Harborside—the world's greatest rail-water terminal—is outstanding.

Outstanding because of its 27,000,000 cubic feet of combined dry- and cold-storage, office, showroom, and manufacturing space, under one vast roof. Outstanding for the scope and quality of its service. Outstanding in the distinction of its clientele.

You, too, can profit from the modern, time- and money-saving

procedures of Harborside by making it your operational headquarters for the New York area. For full details about the safe, swift, expert service at Harborside—its exceptional facilities—send today for our descriptive folder.

Harborside is directly opposite Cortlandt Street, Manhattan. It has direct connections with the Pennsylvania Railroad, and with all other lines and with freighters, via lighterage. 26-car placement. Five minutes from Holland Tunnel and trunk highways.



"Gateway to the World"

PHOTO BY FAIRCHILD
AERIAL SURVEYS, INC.

HARBORSIDE

WAREHOUSE COMPANY, INC. • 34 EXCHANGE PLACE, JERSEY CITY 3, N. J.

